The Psychology of Psychologists: An Exploration of the Factors that Influence School Psychologists' Practices and Perspectives in the Assessment of Children Referred with Behavioural Difficulties.

Lydia Maria Lanza

UCL Institute of Education

Doctor in Education

Abstract

Children all around the world demonstrate behaviour problems. These may consist of a wide array of disruptions ranging from mildly annoying and relatively minor problems to more significant and marked behaviours. Among the forty-three countries where school psychology services exist, school psychologists are often called upon to assess children who are demonstrating behaviour difficulties and other mental health issues. Yet few studies exist which explore school psychologists' practices and perspectives in the assessment of children referred due to behaviour difficulties. This thesis will contribute to the existing body of knowledge by exploring the: 1. Theoretical Factors, School Psychologist Factors and 3. Assessment Factors that influence Ontario school psychologists' practices and/or perspectives in their assessments of children referred with behavioural difficulties. Forty-four school psychologists from the province of Ontario, Canada, participated in a mixed-methods study using self-administered postal questionnaires and semi-structured interviews. The results of this study highlight that Ontario school psychologists aim to provide psychological assessments that allow them to identify difficulties across the continuum of behaviour from mild to severe. Significant findings include relationships between the areas of: training, registration, years of professional experience, methods of assessment, diagnosis, interventions, as well as theoretical perspectives of behaviour. As school psychology continues to grow internationally, it is essential that school psychologists are at the forefront of conducting research that encourages self-reflection, enhances their knowledge and skills, and advances the profession.

Declaration and Word Count

I hereby declare that, except where explicit attribution is made, the work presented in this thesis is entirely my own.

Word Count (exclusive of appendices, the list of references and bibliographies but including footnotes, endnotes, glossary, maps, diagrams and tables): 45,726

Acknowledgments

I would like to sincerely thank Professor Julie Dockrell for her guidance and support throughout the preparation and completion of my Thesis.

I would also like to thank the school psychologists that agreed to participate in this research study. I am very grateful for your time and kind help, as it is your participation which made this thesis possible.

Table of Contents

List of Tables

List of Figures

Statement

Upon the completion of my thesis I am taking this opportunity to review and reflect upon the total academic experience as it has evolved over the years, within the context of each of the four main elements of the Doctor in Education Programme. These include: the four coursework essays, the Portfolio, the Institution-Focused Study and now finally, the Thesis. Each of these components is linked to the other and represents my educational journey which culminates in the completion of this Thesis. Having completed this final component, I am able to engage in thoughtful self-reflection and careful consideration of both my academic and professional progression, in terms of the skills I have gained to be an effective researcher, as well as the relationship and impact which this embodies in the context of my professional practice and development.

By describing and reflecting upon the content of the EdD programme, the following sections will respectively consider: the relationship between the assignments and my progression across the four taught courses, the development of my ideas for the institution–focused study, the formulation of ideas and completion of my thesis and finally, the relationship between all of the above and my professional practice and development.

Assignment One: Module One - Foundations of Professionalism

The first module, Foundations of Professionalism requires that we examine ourselves as professionals and the meaning of professionalism within our own contexts. In my first assignment I decided to explore school psychology as a profession by examining the impact of three main areas: 1) marketisation 2) quality assurance and 3) ethics. I also wished to consider their relationship to one another, as they pertain to the ongoing development and evolution of school psychology as a profession, and more specifically as it currently exists in Ontario, Canada. The paper aimed to present the complex issues, challenges and obstacles faced by school psychologists, as they strive to provide high quality, ethically sound, psychological services within the context of a market driven education system. It explored how school psychologists are continuing to develop as a profession in light of the many

challenges they have experienced and will inevitably continue to face, 'en-route' to professionalisation. This assignment was challenging and rewarding. It provided me with an opportunity to view the profession of school psychology both within and outside of its immediate context, in order to more fully understand how the profession affects and is affected by, the world around it. An in-depth review of the literature inspired a substantially broader view of the meaning of professionalism and its application within various contexts, including within the field of school psychology. I feel that my knowledge and understanding of the intricacies of both 'professional development' and the 'development of professionals' has been both informed and extended by participating in this assignment.

Assignment Two: Module Two - Methods of Enquiry One

In order to consider my own ongoing professional development and the idea of research on practice, the focus of the second assignment was to design a research proposal that centres on school psychologists' assessment methods for children/adolescents that are experiencing behaviour difficulties at school. This assignment encouraged my thinking about how to initiate the research process. I was required to explore relevant empirical research and professional issues related to my topic of interest, so that I was able to define relevant and researchable questions. Essentially this assignment helped to direct the formulation of ideas about conducting research by requiring that I navigate through the literature in my area of interest, and ground my proposal in what I was reading. I also had to consider how my research could contribute to the existing literature in my area of interest. It was necessary that I present a theoretical framework for my proposed research, including a discussion of methodological and philosophical debates. I was expected to develop an appropriate design to answer my research questions, to choose suitable methods and forms of analysis, as well as to consider a realistic timeline. Finally, I was required to address the political and ethical issues that exist in the design, conduct and dissemination of my results. This assignment provided the foundation for understanding the theoretical and conceptual issues that underpin effective research, and the issues that must be addressed in order for research to be meaningful, relevant and applicable to the professional context. At every juncture it was essential that I discuss, debate and justify my thinking and/or decisions with

respect to how I would design, execute and evaluate my research. This was an invaluable assignment as it clarified the processes of research and what issues must be considered at each and every stage. In this assignment I not only began exploring my area of interest, but I learned to review the research that would form the foundation for my thesis later on.

Assignment Three: Module Three – Methods of Enquiry Two

The research which I conducted in the Methods of Enquiry Two assignment helped to provide a framework for my interest in children referred with behavioural difficulties. By delving into the existing literature, I was able to ground my research in a way that allowed me to consider where I could make a meaningful contribution. In this assignment I was required to develop my research skills by experiencing the stages of empirical research through conducting a small-scale study. The process involved the formulation of a researchable question, the application of an appropriate research design (survey research), and research method (questionnaire), as well as an analysis and presentation of the results in the form of a written report. This assignment required that I think about my area of interest, which is the assessment practices of school psychologists in relation to children with behaviour problems, by focusing on a specific issue (that is, the types of tests they presently use). I needed to think very carefully about the effectiveness of my chosen research method to gather the information required to answer the research question. During this assignment I experienced both the eagerness and interest to conduct research, as well as some of the challenges that can arise during the research process (for example, issues of accessibility and the availability of one's target population to administer the questionnaire). I found this to be an extremely valuable process as I was able to engage in the research process in a more 'hands-on' manner. As a result, I felt prepared and eager to meet the challenges of the larger research projects (that is, the Institution-Focused Study and Thesis) that were forthcoming.

Assignment Four: Module Four- Specialist Course in International Education

Following my small but successful foray into the world of research on practice, the final assignment provided a slightly different focus than the first three assignments, which also helped to prepare me for the research process. The focus of the Specialist Course in International Education assignment was two-fold. The first paper explored the challenges of achieving the goal of basic primary education for all children, through the 'Classroom Challenge: The Education For All Game', with a view to more fully understanding: 1) the complexities of the term 'globalisation' and how it manifests itself in the context of the game and 2) how the game reflects the political, cultural and economic challenges and contradictions that confront the world's nations in their attempt to provide basic primary education for all. These issues are all relevant in education and in the related field of school psychology.

The second paper I wrote however, focused more specifically on the profession of School Psychology. The purpose of this essay was to explore the meaning, applicability and relevance of an international practice/focus for the field of school psychology. This was important as it made me consider the field of school psychology beyond my local environment and required me to consider how school psychology fits into the wider national and international contexts. As I proceeded through this process, I was highly motivated by the connection between my interest in assessment, and the challenges, issues and complexities surrounding the adoption of foreign practices within very distinctive and unique communities and contexts. This paper elevated and broadened my perspectives on the practice of school psychology. It forced me to consider the profession within an international context. As a result, I transformed my knowledge about the concept of assessment by connecting it to the general and more global practice of school psychology.

The Institution-Focused Study

Following the completion of the four taught courses, I began to formulate my ideas for the Institution-Focused Study based on the understandings, concepts and skills that I have developed including: a) an increased awareness of the complexities involved in professionalism b) the development of a relevant research proposal and c) conducting and evaluating research in the broader context of research which currently exists. By exploring the assessment methods of school psychologists in Ontario I was able to better understand the complexities of designing and conducting research in one's own institution (insider research) and the importance and impact this research can have on professional practice and professional development. It further allowed me to consider the importance of contributing to the existing knowledge base of school psychology. By researching one's own institution and practices, the overall knowledge base expands and can create a forum for dialogue about the future of school psychology at a local, national and international level.

The Thesis

As I approached the final phase of my programme, I realised that each element has uniquely provided the necessary experiences and skills required for me to successfully complete my thesis. By reflecting on professionalism as it exists in school psychology, exploring the literature, and conducting small scale research, I have been developing the skills and confidence necessary to develop, formulate, execute, analyse and evaluate research in preparation for conducting my thesis. My focus from the very beginning has been on the need for school psychologists as professionals to engage in practices that are consistently providing the best practices to the communities served, with an emphasis on children referred with behaviour difficulties. Hence, my thesis is a culmination of the patterns which evolved in each of my assignments. As I consider the 'psychology of psychologists', I wish to carefully and fully explore the factors which influence Ontario school psychologists' practices and perspectives in the assessment of children referred with behaviour difficulties. Given the scarcity of studies in this area, it is hoped that the present study will not only contribute to and extend the existing knowledge

in this area. It is also hoped that this research will encourage school psychologists locally, nationally and internationally to consider the importance of conducting research on practice for their own professional development, as well as for advancing the field of school psychology worldwide.

Professional Practice and Development

As I participated in each stage of the EdD Programme, I feel that I continued to grow, not only in my academic and research skills, but also as a professional in my field. The programme allows each participant to explore both the meaning of being a professional, and the meaning of being a researcher, as they evolve together. As such, I consider the doctoral programme to be an essential component of my continuing professional development. It is through 'research on practice' and 'practice based on sound research' that I am continuing to progress and develop my professional skills.

Conclusion

In conclusion, I feel that from Module One through to the completion of my thesis, my knowledge and skills as a professional psychologist and researcher have continued to evolve, simultaneously. Participation in the EdD programme allows the 'practice of research' and the 'research of practice' to continually function in conjunction and in co-ordination with one another. It is the connection between these two processes that is the essence of ongoing professional development and effective professional practice. This programme has consolidated the concepts of research and practice for me. It provides a cohesive framework for understanding what it truly means to be a professional, not only in my local environment, but as a member of the wider national, and international community, of school psychologists.

Chapter 1 School Psychology and the Assessment of Children's Behaviour Difficulties

1.1 Introduction

Many children around the world demonstrate behaviour difficulties. These consist of a wide array of disruptions ranging from mildly annoying and relatively minor problems (for example, whining, temper tantrums, non–compliance) to more significant and marked behaviours (that is, verbal and physical aggression, property destruction, stealing) (Freeman, 2004; Kendall, 2000; McMahon & Estes, 1997; Offord Centre for Child Studies, 2008). These problem behaviours, which can vary in terms of their frequency, degree and duration, often emerge within the context of the classroom and school. Hence, it is important to recognise that within the school environment, some children will demonstrate behavioural difficulties which may interfere with and jeopardise their personal safety, the safety of others, and the ability of themselves and others to benefit from instruction. Further, these difficulties will likely cause considerable anguish in their own lives and those who care about them, including their parents and teachers (Kendall, 2000; Offord Centre for Child Studies, 2008). As Jones (2003, p. 152) explained, "some pupils *are* troubled and, not merely troublesome", and will require an intensive review of their needs.

Therefore, while most children will likely display and subsequently outgrow some behaviour difficulties as a normal part of their development, a small number will demonstrate more severe behaviour difficulties that can have serious consequences throughout the lifespan, and that will interfere with their ability to learn, develop and lead a normal life (Association of Chief Psychologists with Ontario School Boards 2012; Mash & Terdal, 1997; McCabe, Hough, Wood & Yeh, 2001; National Children's Bureau, 2004; Offord Centre for Child Studies, 2008; Royal College of Psychiatrists, 1999). This is of great significance as severe behaviour difficulties in early childhood may foreshadow, and have been associated with problems later in life, including: criminal behaviour, mental health problems, drug and alcohol misuse, relationship breakdowns and poor work histories (McCabe, et al., 2001; McMahon & Estes, 1997; National Children's Bureau, 2004; Offord Centre for Child Studies, 2008; Waddell, Lipman & Offord, 1999).

Among the forty-three countries where school psychology services currently exist, school psychologists are often called upon to assess children who are demonstrating a wide range of behaviour difficulties and other mental health issues (Jimerson, Oakland & Farrell, 2007). Given the importance of their roles, it seems necessary that school psychologists as professional practitioners, should examine and reflect upon their practices and perspectives, to ensure that they are using sound judgment, and demonstrating high levels of competence in their work. The ability to effectively assess and support children with a wide range of behaviour difficulties, will most certainly rely on the types of methods applied, the formulation of appropriate diagnoses (when warranted) and the provision of proper support and intervention. Hence, a psychological assessment performed by a school psychologist would ideally draw attention to all relevant issues, in order to ensure a thorough understanding of the child's strengths and needs, with a view to devising an effective plan to address them. It seems necessary, therefore, that school psychologists critically examine their practices and perspectives within their particular professional contexts.

According to the International School Psychology Association (Farrell, Jimerson & Oakland, 2007, p. 508) "…few school psychologists are engaged in research"...therefore…"the need for more research and other forms of scholarship designed to contribute to knowledge and skills needed by school psychologists, is obvious". In fact, research of school psychology services worldwide, conducted by the International School Psychology Association (Jimerson et al., 2007), highlighted the importance of developing guidelines and standards in order to promote and encourage effective assessment and intervention practices for school psychologists, internationally. The research by Jimerson et al. (2007) further emphasised the significance for every school psychology service, from the most advanced and well-resourced, to the more under-developed and evolving, to examine their practices in order to remain relevant and effective. Jordan, Hindes and Saklofske (2009) concurred with this view and indicated that overall, Canadian school psychologists spend little time doing research, even though they may see it as important.

Therefore, there must be a greater investment by school psychologists in Canada, and internationally, to consider the value of research on practice to enhance and strengthen their skills and knowledge. This will benefit the communities they serve and contribute to the development of the profession (Jordan et al., 2009). Examining various factors such as: training, registration (licensure), assessment methods, diagnostic practices, interventions and any other relevant areas of practice can and therefore should, be more fully explored by school psychologists to determine their impact, or lack thereof, on the efficacy of their practice (Jimerson et al., 2007; Jordan et al., 2009).

Research on practice is especially beneficial when considering outcomes for children with a wide range of behaviour difficulties. As Mash and Terdal (1997), Kendall (2000) and Powell et al. (2011) have explained, it is necessary to be fully equipped with the training, skills and assessment tools required to effectively assess behaviours across the continuum, ranging from relatively minor and less severe, to more seriously problematic and complex (such as, Conduct Disorder, Oppositional-Defiant Disorder, Attention-Hyperactivity Disorder, and/or any co-morbid disorders, such as Depression, Specific Learning Disorders). This is particularly important for school psychologists so that they are able to identify both a child's fitness for school, as well as addressing any necessary clinical objectives (Jones, 2003). Enhanced awareness, skills, and understanding will only serve to meet the diverse needs of the children, families and schools served, as well as promote greater trust in the value, soundness, and importance of the profession.

As an Ontario school psychologist and a doctoral student in the field of school psychology, I am interested in examining both the field of school psychology in general, as well as the practices and perspectives of school psychologists in particular, in order to contribute to, and benefit from, the growing knowledge in this field. However, my interest in children with behaviour difficulties began much earlier in my role as a classroom teacher. Working with children of different ages that were experiencing various kinds and degrees of problematic behaviour, made me particularly aware of the importance of an accurate and effective assessment of their strengths and needs, in order to determine the best options for intervention.

Hence, after almost a decade of teaching, I decided to focus my attention on supporting children, families and schools by training and working as a school psychologist. At present, my interest is to explore and more fully understand the many and complex factors involved in the assessment, identification and intervention of children's behaviour difficulties, as well as the role of the school psychologist, in successfully supporting this process.

As indicated above, there exists few studies in relation to the views and practices of school psychologists regarding assessment. This is particularly evident in relation to children demonstrating behavioural difficulties. This topic is critical to explore as school psychologists are an important part of both the education and health systems, often working with and conducting assessments of the most vulnerable populations in society. Therefore, it is important to understand the factors that influence their assessments, in order to effectively inform, and if necessary, reform their practice. In this way, school psychologists will be able to more consistently and effectively support the children, families and schools in their communities, to strive towards more successful outcomes. This will also encourage and promote confidence in the profession, and the ongoing development of the field of school psychology. The current study therefore aims to explore the various factors that influence Ontario school psychologists' practices and perspectives in the assessment of children referred with behaviour difficulties.

1.2 Conclusion

It is the focus of this research study to make a meaningful contribution to the field of school psychology, at a local, national and an international level, by exploring the factors that influence the practices and/or perspectives of Ontario school psychologists with regard to their assessments of children referred with behavioural difficulties. It is hoped that by exploring the field of school psychology in this particular context, that this research will extend and expand knowledge within the profession in general, and will also encourage, influence and impact further research in this area locally, nationally and internationally.

Chapter 2 Children's Behaviour Difficulties

2.1 Introduction

As introduced in the previous chapter, children with behaviour difficulties may be at risk for serious difficulties later in life (McCabe, et al., 2001; McMahon & Estes, 1997; National Children's Bureau, 2004; Offord Centre for Child Studies, 2008; Waddell, Lipman & Offord, 1999). Therefore it is essential to understand and address these difficulties as soon as possible in order to help offset the chance of these children succumbing to undesirable negative outcomes. This chapter will aim to provide the context and a greater understanding of the factors related to children's behaviour difficulties by considering: a) the theoretical perspectives of behaviour which have historically guided the understanding of children's' behaviour difficulties b) the definition and prevalence of behaviour difficulties and disorders, c) the school psychologist as a key professional in the assessment of children's behaviour difficulties, as well as d) the elements and issues involved in the assessment of children's behaviour difficulties.

It is important to note at this juncture, that in Canada and around the world, school psychologists work in several different contexts including: schools, hospitals, clinics, community agencies, universities and in private practices, to name a few (Jimerson et al., 2007; Saklofske, Schwean, Harrison & Mureika, 2007). In Ontario, school psychologists may be accessed via School Boards, hospitals, children's mental health clinics, and through private practices (Association of Chief Psychologists with Ontario School Boards, 2012). Within the context of a School Board, they work with children and adolescents from Elementary through Secondary school. However, private school psychologists may choose to limit their practice to specific age groups. In order to set the context for understanding children's behaviour difficulties as outlined above, and for the purpose of ease and clarity, the term 'children' will be applied to describe all Elementary and Secondary school-aged children and adolescents in the Ontario education system.

2.2 Theoretical Perspectives of Children's Behaviour Difficulties

School psychologists among other health care professionals regularly assess children that present with a wide range of behaviour difficulties. According to Moore (2005), however, there is a need for school psychologists to examine the theoretical foundations which underpin and guide their expert professional practice and the methodological implications associated with them. As a school psychologist, Moore (2005, p. 107) encouraged all school psychologists to question, "how often do we as applied psychologists stop and question the legitimacy of our paradigms as expressed through our actual practice?".

Therefore, reflective and reflexive professional practice requires an examination of our own beliefs and knowledge both in terms of theory and how we apply this to practice (Moore, 2005). As a necessary component for a deeper understanding of 'what we do' and 'why we do it', Moore (2005, p. 114) suggested that school psychologists should... "explore our own theoretical basis for our practice and in so doing"…this…"reveals how 'good' practice is always a complex synthesis of both practice and theory". Each informs the other, is continually in flux, and is being drawn upon to meet the complicated and changing dynamics of the school psychologist's present context (Moore, 2005). Hence, it is critical that school psychologists recognise the reciprocal value of reflecting on theory and practice. In the context of this study, this begins by considering theories of behaviour which have historically guided an understanding of children's' behaviour difficulties.

While there is agreement with respect to the need for systematic and comprehensive assessments of children with behaviour difficulties, there has and continues to be substantial controversy with respect to: how behaviour difficulties should be defined, what should be assessed, what methods should be employed, and how the results or outcomes of such assessments should be interpreted, integrated and utilised (Achenbach & Edelbrock, 1978; Ayers, Clarke & Murray, 1998; Jones, 1995; Jones, 2003; Laslett, Cooper, Maras, Rimmer & Law, 1998; Mash & Terdal, 1997; Upton & Cooper, 1990; Young Minds in Schools, 2012).

These debates are historically rooted in divergent theories about the nature and causes of children's problematic behaviour and the necessary means of addressing them (Ayers et al., 1998; Jones, 2003; Laslett et al., 1998; Winzer, 1990; Young Minds in Schools, 2012). These theoretical perspectives include but are not exclusive to: Biological, Behavioural, Cognitive-Behavioural, Social-Learning, Psychodynamic, Humanistic, and Ecological perspectives of behaviour (Ayers et al., 1998; Young Minds in Schools, 2012). Each of these address, assess, formulate, intervene and evaluate changes, in different and often what appears to be, completely conflicting or opposed ways (Ayers et al., 1998; Kendall, 2000; Mash & Terdal, 1997; Offord Centre for Child Studies, 2008; Young Minds in Schools, 2012).

Some of the main theories of behaviour are briefly reviewed below. The Bio-Psycho-Social perspective is also discussed. Each one will be considered in terms of how they account for children's behaviour difficulties, their implications for assessment and intervention, as well as some of the concerns and/or limitations associated with each model.

2.3 Biological Perspective

The Biological Perspective of behaviour is based on a medical model, or theory of behaviour which emphasises the role of biological factors including, but not exclusive to: biochemical processes, genetics, brain chemistry, and hormones, as influencing or causing behaviour difficulties (Ayers et al., 1998; Kendall, 2000; Wenar & Kerig, 2005; Young Minds in Schools, 2012). Methods of assessment can include but are not limited to: psychometric testing, neuropsychological testing, assessments of brain anatomy and brain imaging (such as PET, CT, and MRI) (Ayers et al., 1998, Young Minds in Schools, 2012). Interventions from a Biological Perspective mainly involve the use of drug therapies (such as Ritalin) (Ayers et al., 1998; Kendall, 2000, Wenar & Kerig, 2005; Young Minds in Schools, 2012). However, it is important to note that while some may benefit from drug treatment, individual response may differ (such as no response or adverse effects), resulting in the need for other interventions to be considered (Ayers et al., 1998). Another

concern raised about this approach to understanding children's behaviour, is its tendency to reduce complex mental issues to an individual's biology (Ayers et al., 1998; Kendall, 2000) That is, the main focus of this perspective is on organic or biological origins of behaviour difficulties, without due consideration of possible environmental causes (Ayers el al., 1998), and downplaying the effects or "the contributions of personal learning histories, ongoing interpersonal conflicts, or cognitive misperceptions of interpersonal events" (Kendall, 2000, p. 14).

2.4 Behavioural Perspective

From a Behavioural Perspective, a child's behaviour, whether appropriate or inappropriate, is learned (Ayers et al., 1998, Young Minds, 2012). The focus of this perspective is on overt, observable, and measureable behaviours and their reinforcement. Assessments of children's behaviour difficulties may include but are not limited to: observation schedules (for example, event sampling and frequency counts), the use of rating scales, checklists, observing the antecedents and consequences surrounding undesirable behaviours (ABC), and the functional analysis of behaviour to determine what function or purpose the behaviour serves (Ayers et al., 1998). Interventions within the Behavioural perspective can include but are not exclusive to: reinforcement programmes (to learn appropriate behaviours and unlearn inappropriate behaviours), as well as, the use of token economies, response-cost programmes, extinction and the implementation of 'time-out' for inappropriate behaviour (Ayers et al., 1998, Young Minds, 2012). One of the criticisms raised with respect to the Behavioural perspective is that it does not address cognitive and unconscious processes in maladaptive behaviour (Ayers et al., 1998; Cooper & Jacobs, 2011). This approach looks at observable symptoms rather than considering any underlying causes of the behaviour difficulties (Ayers et al., 1998; Cooper & Jacobs, 2011). While a behavioural approach offers precision and focus for intervention, due to the ease in which results can be measured, it tends to focus mostly on "surface behaviour" (Cooper & Jacobs, 2011, p. 48) which can lead to masking, neglect and the possible exacerbation of problems of an intra-psychic nature (Cooper & Jacobs, 2011).

2.5 Cognitive-Behavioural Perspective

A Cognitive-Behavioural Perspective or theory of behaviour is based on the principle that "an individual's cognitions play a significant and primary role in the development of emotional and behavioural responses to life situations" (Gonzalez-Prendes & Resko, 2012, p. 14). Behaviour is therefore mediated through cognition and cognitive processes in the form of beliefs, attitudes, expectations, meanings, judgements, appraisals, expectations, assumptions and attributions associated with various life events (Gonzalez-Prendes & Resko, 2012). Further, these processes determine one's feelings and actions in response to various life events (Ayers et al., 1998; Gonzalez-Prendes & Resko, 2012). Children's behaviour difficulties are therefore seen as a problem of maladaptive thinking (Kendall, 2000). Hence, the assumption is that cognitions and cognitive processes can and must be intentionally targeted in order for one's behaviour to be modified and changed (Gonzalez-Prendes & Resko, 2012).

Assessment of children with behaviour difficulties using methods from a Cognitive-Behavioural Perspective may include but are not limited to: interviews used to explore beliefs, attitudes and attributions, self-monitoring through the use of logs, diaries, self-rating scales and self-report questionnaires (Ayers et al., 1998). Interventions aim to help modify the processing of events, evaluations and perceptions while utilising behavioural performance-centred procedures to help children to set and monitor their own behaviour targets (Kendall, 2000;Young Minds, 2012). These include but are not limited to verbal mediation strategies for developing reflective self-control, problem-solving training, self-instruction training, positive self-statements/self-reward (Ayers et al., 1998), as well as strategies based in positive psychology which focus on students' strengths, promoting resilience and character building (MacConville & Rae, 2012; Rae & MacConville, 2014). According to Kendall (2000), an ever increasing number of mental health professionals have identified themselves as having a cognitive-behavioural orientation, and that it has only ranked second, on occasion, to those who have named "eclecticism" (that is, drawing value from various theoretical and therapeutic perspectives) as their theoretical orientation (Kendall, 2000). However, according to the United Kingdom's National Health Service (2011), one of the

criticisms of this perspective is with respect to the demands of therapy. While Cognitive-Behavioural therapies and interventions have wide applications for those with various degrees of emotional and behavioural problems (Ayers et al., 1998; Kendall, 2000; National Health Service, 2011), one must invest a considerable amount of commitment and involvement in order to benefit from therapy, which may be difficult for those with complex mental health needs or learning difficulties (National Health Service, 2011). Some also argue that cognitive-behavioural therapy focuses only on the present, and it does not account for past experiences or underlying causes that may be related to mental health issues (National Health Service, 2011).

2.6 Social-Learning Perspective

A Social-Learning Perspective of behaviour focuses on observational learning. That is, learning is accomplished through observing the actions of others as well as learning from the consequences that result from those actions (Ayers et al., 1998; O'Donnell, D'Amico, Schmid, Reeve & Smith, 2007). Based on Bandura's (1977) theory of social or vicarious learning, vicarious reinforcement and vicarious punishment, students learn new behaviours, new consequences, performance expectations and self-talk, via modelling (O'Donnell et al., 2007). The child must be able to attend to the important features of a model's behaviour, retain the modelled behaviours being observed, have the skills to perform the behaviour as close as possible to the model observed, and have the motivation to reproduce the modelled behaviour by viewing it as important or leading to success (Ayers et al., 1998; O'Donnell et al., 2007). Behaviour is therefore influenced by a child's perceived self-efficacy. Hence, behaviour difficulties are a result of low levels of self-efficacy or feelings of inefficacy, negative expectancies, negative self-concepts, negative self-evaluations, and exposure to models that display negative behaviour (Ayers et al., 1998).

Assessments of children's behaviour difficulties from a social-learning perspective aim to describe children's' levels of perceived self-efficacy and expectancies by having them make statements about them and their associated behaviours (Ayers et al., 1998). Methods of assessment include but are not exclusive to: children's self-

monitoring, the use of self-report questionnaires and interviews to explore perceived self-efficacy and/or expectancies (Ayers et al., 1998). Interventions aim to increase cognitive and behaviour competencies through modelling and by changing negative or low levels of perceived self-efficacy (Ayers et al., 1998; O'Donnell et al., 2007). For example, a teacher demonstrates desired behaviours to their students and the students imitate this behaviour until a satisfactory level of competence is achieved (Ayers et al., 1998). Teachers make comments during the demonstration and reinforce students' efforts, while also encouraging students to use positive self-statements in an effort to increase motivation (Ayers et al., 1998). This can also be effectively executed in the form of peer modelling in order to help children with behaviour difficulties master their problems (Ayers et al., 1998). It is important however, that the model be realistic, encourage trust, and convince the student of success (Ayers et al., 1998).

Criticisms of this perspective are based on a disagreement or questioning of the supposition that there is a dynamic interaction between the individual and the environment (or situation) and that simple changes in the environment will result in a change of behaviour (Flamand, 2014; Sammons, 2014). It is argued that for many people, behaviour may be consistent regardless of the environment and therefore environmental changes do not necessarily or always lead to changes in behaviour (Flamand, 2014). Further, this perspective of behaviour is criticised as having a tendency to ignore genetic, biological or hormonal determinants of behaviour, by placing its emphasis on cognitive abilities and modelling (Flamand, 2014; Sammons, 2014). The argument in this instance is that genetics, biological or hormonal processes may affect the way decisions are made and the way a person behaves, regardless of any past experiences or their cognitive abilities (Flamand, 2014; Sammons, 2014).

2.7 Psychodynamic Perspective

A Psychodynamic perspective of behaviour is concerned with how an individual's present behaviour is associated with feeling-states that are related directly to early life experiences (Cooper & Jacobs, 2011), and how needs, emotions and drives motivate behaviour (Hutchison & Charlesworth, 2011). Current maladaptive

behaviour is seen to be located in the "unconscious functioning of the psyche" or unresolved unconscious conflicts occurring in childhood (Ayers et al., 1998, p. 44). In a school environment this could theoretically present as aspects of the learning environment (school, classroom, school yard) and/or interactions with others (teachers, students, personnel), which trigger unconscious processes. The unconscious processes enmesh a child in emotional conflicts generated by the child's earlier experiences (Ayers et al., 1998). For example, 'regression' is a defense mechanism that may be observed when a child seeks to avoid anxiety. The child reverts to an earlier stage of development or more immature mode of behaviour, such as having a temper tantrum (for example, rolling on the floor and crying) in order to avoid a learning task that he or she feels he will not be able to successfully accomplish (Ayers et al., 1998). Methods of assessment from this perspective may include but are not exclusive to: using free association, projective techniques (for example, Rorschach or inkblot test), interpreting dreams, interpreting drawings, playing with toys, and using interviews, to name a few (Ayers et al., 1998). As Cooper and Jacobs (2011, p.46) explained, interventions from this perspective are "often described as 'therapeutic' and can take a wide range of forms, from one-to-one forms of interventions, such as psychotherapy and counselling, to whole-institution approaches (schools run as 'therapeutic communities')".

The purpose and common focus uniting the interventions within this perspective are the importance which is placed on interpersonal relationships and the development of a positive self-image/self-acceptance via the therapeutic relationship (Cooper & Jacobs, 2011). Contributions of this perspective include an increased understanding of: normal versus pathological development via the uncovering of the 'unconscious', motivations that underlie human behaviour, as well as, the concept of defense mechanisms (Wenar & Kerig, 2005). However, some criticisms of this perspective are its tendency to focus on the first five years of life without giving attention to later stages of development (Wenar & Kerig, 2005), and that it is based on constructs whose existence are, at the very least, difficult if not impossible to directly test (Sammons, 2014). Psychoanalysis is also criticised for being excessively complex, full of inconsistencies, inferential, and

containing assumptions which are difficult to test using tightly or strongly controlled research (Wenar & Kerig, 2005).

2.8 Humanistic Perspective

A Humanistic perspective of behaviour rests on the principle that all human beings are deserving of respect because they are human beings (Cooper and Jacobs, 2011). It focuses on the ways in which individuals function as whole beings that have thoughts and feelings (Ayers et al., 1998). It also emphasises the uniqueness of the individual and the importance of: self-concept, self-esteem, the actual and ideal self, and feelings (Ayers et al., 1998; Young Minds, 2013). Accordingly, children's behaviour difficulties are seen as resulting from poor self-esteem and problems coping with one's feelings (Ayers et al., 1998; Young Minds, 2013). Hence, the emphasis for improving difficult behaviour is on communication rather than punishment, establishing good and positive relationships, and focusing on the nurturing of the child's emotional needs via the use of empathy, unconditional positive regard, and congruence (Young Minds, 2012). Methods to assess children referred with behaviour difficulties from a Humanistic perspective include but are not exclusive to: self-esteem questionnaires, personal constructs repertory grid, observation of interactions in the classroom and playground, actual and ideal self questionnaires, listening to the pupil's views, and the Q-sort, to name a few (Ayers et al., 1998).

Interventions focus on the idea that problematic behaviour is the result of a student experiencing low self-esteem, and having difficulties coping with feelings towards others, which may include family members, friends and/or school personnel (Ayers et al., 1998). Hence, approaches aim to raise self-esteem, encourage self-actualisation and improve relationships with others through person-centred counselling (Ayers et al., 1998; Young Minds, 2012). Person centred-counselling aims to achieve the above through the use of unconditional positive regard, empathy and genuineness (congruence) (Ayers et al., 1998; Young Minds, 2012). A contribution of the Humanistic Perspective of behaviour includes a focus on the positive nature of human beings and their free will to make positive changes in their own behaviour (Allpsych, 2014). This is in contrast to a biological perspective,

which is more deterministic in nature, and considers individuals to have a lack of power/control to make positive changes in their own behaviour (Allpsych, 2014). Rather, they rely on interventions such as medication to 'cure' the problem resulting from their 'condition' (Allpsych, 2014). Some of the limitations of a humanistic perspective are its lack of ability to help those with more severe personality/mental health problems or psychopathology, a lack of concrete or set treatment approaches for specific issues, and the tendency to make unchallenged generalisations about human nature (such as, all people are basically good) (Allpsych, 2014).

2.9 Ecological Perspective

An Ecological perspective of behaviour focuses on the influence of systems and the physical-spatial and/or social environment as accounting for or influencing children's behaviour difficulties (Ayers et al., 1998; Young Minds, 2012). That is, behaviour difficulties evolve through interactions and transactions between students and their social and physical environments (Ayers et al., 1998; Winzer, 2007). Because behaviour difficulties are contextual, they cannot therefore be understood in isolation from the various settings or environments in which they occur (Ayers et., al 1998; Winzer, 2007). Methods of assessing children referred with behavioural difficulties from an Ecological perspective may include but are not limited to: interviews, questionnaires, surveys, observations of pupil grouping, seating arrangements, reviewing classroom organisation, as well as, understanding teachers' expectations and students' perceptions (Ayers et al., 1998; Young Minds, 2012).

From an Ecological perspective, interventions for children with behaviour difficulties can include: changes to or modification of the physical and social environment, to improve interactions and transactions in the home, classroom and school environments (Ayers et al., 1998; Young Minds, 2012; Winzer, 2007). Home-school liaison, whole-school behaviour policies and improved classroom management are all interventions which aim to improve student-environment interactions (Ayers et al., 1998). One of the contributions of this model is that it removes the focus of behaviour difficulties from being within the child, to interactions and transactions between the child and the environment (Winzer,

2007). Nonetheless, it has been argued that focusing solely on person-environment interactions, by making changes to the social or physical environment (for example, moving a child's desk or placing them within a new student work group) in order to improve behaviour (through changed perceptions, attitudes and expectations), overlooks and may in fact miss, the reality of potential psychopathology (Jones, 2003), and the possibility of gaining appropriate treatment or intervention when necessary (Jones, 2003).

2.10 Conflicting Views of Children's Behaviour Difficulties

As explained earlier, each of the theories above offers different and often opposed or conflicting ways of understanding children's behaviour difficulties, which also serves to highlight their complexities. Historically, however, one of the main debates with respect to children's behaviour difficulties has been whether problems are primarily attributed to internal or external factors. Theories of behaviour (such as, Biological or Psychodynamic) that exist within disciplines related to a medical or 'traditional model' (for example, psychiatry, paediatrics, psychometry), have been criticised as viewing problem behaviour primarily as a function of psychopathology (Ayers et al., 1998; Jones, 2003; Mash & Terdal, 1997). That is, behaviour difficulties are related to internal factors or 'within child' variables, which may result in specific medical treatment and/or removal of a child to a treatment or other therapeutic facility (Ayers et al., 1998; Jones, 2003; Mash & Terdal, 1997).

Opposition to the medical perspective has called attention to alternative theories of behaviour (for example, the Social-Learning or Ecological), which emphasise social, environmental and/or interactional factors as being at the core of children's behaviour difficulties (Ayers et al., 1998; Jones, 1995; Upton & Cooper, 1990). As discussed above, this is helpful in that the onus is removed from the child 'being the problem' or viewing the problem as resting 'within' the child. It encourages an assessment of the interactions and transactions between the child and his/her environments (home, school and community), to help determine their role in supporting the problematic behaviour.

However, as Jones (2003, p. 150) argued, when the perceived difficulties and the locus of expertise shifts from medical psychology to sociology, this can have the effect of casting "doubt in the reality of psychopathology", and tends to "reconstruct problematic behaviour as context dependent, transient, and its severity as a matter of subjective judgement". As such, the denial or dismissal of possible biological/organic factors, in favour of environmental factors to explain a child's behaviour difficulties, can result in some children suffering from debilitating disorders, that will not be properly diagnosed. Therefore, these children may not receive required interventions/treatments, resulting in even more problems for them in the short and long-term.

Hence, at their best, some of the anti-medical discourses drew attention to the importance of communication patterns and classroom relationships (Jones, 2003). However, at their worst they deny that "some pupils *are* troubled and, not merely troublesome, and would benefit from help that schools and the local education authority cannot provide by mere environmental or attitudinal manipulations" (Jones, 2003, p. 152). That is, for the child who is suffering from marked behaviour difficulties, which do not appear to be a result of any obvious environmental or temporary stressor(s), which occur outside of the scope of what might be expected for the child's age and development, and that cannot be fully addressed within the context of the school/classroom environment, there must be due consideration and attention given to all other potential explanations including the existence of a disorder(s) (Kendall, 2000).

According to Mash and Terdal (1997), the above theoretical contrasts were particularly useful in helping to understand children's behaviour problems during the early and formative periods within the field. However they have also argued that overemphasising these distinctions can be potentially negative. That is, they can "foster the blanket acceptance or rejection of certain ideas…. or procedures…when such categorical decisions are often undesirable within the problem-solving model" (Mash and Terdal, 1997, p. 2). Rigid distinctions in the assessment of children's behaviour difficulties are therefore likely to have (even if unintended), the consequence of overlooking, ignoring, or missing crucial pieces of information about a child's behaviour difficulties that are necessary, in order to

provide effective support, intervention and/or treatment. As such, there is increased interest and greater attention being paid to integrative models, such as the Bio-Psycho-Social Model which stress an interaction of genetic factors, biological dispositions, and environmental issues (Cooper & Jacobs, 2011; Kendall, 2000).

2.11 The Bio-Psycho-Social Perspective

One of the central features of the Bio-Psycho-Social perspective is that "biological systems, such as neurology, are strongly influenced by genetic inheritance"…and that…"from the earliest stages of life"…"the development of biological systems is affected by environmental factors" (Cooper and Jacobs, 2011, p. 57). In other words, a Bio-Psycho-Social model aims to provide an account of how the interaction between the genetic, biological, psychological and social/environmental factors impact behaviour and behaviour difficulties (Cooper and Jacobs, 2011). Assessment methods and interventions/treatments can therefore be drawn from various disciplines including psychology, education, sociology, psychiatry and medicine (Cooper and Jacobs, 2011) in order to address a wide range of behaviour difficulties and/or disorders. While it appears that the Bio-Psycho-Social model provides a promising framework for assessment, it too is not without its critics. One of the main criticisms of this perspective is that it is exceedingly broad due to its excessive eclecticism (Ghaemi, 2006, p.621). In other words, this is a model "whereby anything goes"…and that "no viewpoint can be seen as definitively correct or incorrect" (Ghaemi, 2006, p.621). Nonetheless, those in favour purport that the Bio-Psycho-Social model is the most promising, as it encourages a more holistic and comprehensive approach to assessing, understanding and addressing the complex nature of children's behaviour difficulties (Cooper and Jacobs, 2011).

2.12 Behaviour Difficulties or Disorders?

For the purpose of clarity and understanding, the term 'behaviour difficulties' in this thesis is to be defined as: 'behaviour problems which exist on a continuum of disruptions ranging from mildly annoying and relatively minor problems (for example, whining, temper tantrums, non–compliance) to more significant and marked behaviours (that is, verbal and physical aggression, property destruction,

stealing), and that following a psychological assessment, may (if warranted) result in the formal diagnosis of a Disruptive, Impulse-Control or Conduct Disorder, or other disorder that may manifest itself through behaviour problems' (American Psychiatric Association, 2013; Freeman, 2004; Kendall, 2000; McMahon & Estes, 1997; Offord Centre for Child Studies, 2008). Therefore, when discussing a continuum of behaviour difficulties ranging from mild to disordered, it is important to first understand and identify the difference between a behaviour difficulty and a disorder.

To begin, 'disorders' related directly to problems in self-control and the regulation of behaviour and emotions (American Psychiatric Association, 2013), as well as, many other disorders, are typically identified by two international diagnostic and classification systems (Cooper & Jacobs, 2011). That is, the: 1.) Diagnostic and Statistical Manual of Mental Disorders - 5th Edition (DSM-V) of the American Psychiatric Association (2013), and the 2.) World Health Organization's (WHO) International Classification of Diseases – 10th Edition: The ICD-10 Classification of Mental and Behavioural Disorders (WHO, 1992). In North America, the DSM-V manual is most often referred to, and includes references to corresponding ICD-10 codes (Cooper & Jacobs, 2011).

Disruptive, Impulse-Control and Conduct Disorders include those conditions which specifically involve problems with an individual's self-control in relation to their behaviour and/or emotions (American Psychiatric Association, 2013). While there are other conditions/disorders that may also manifest themselves as marked problems with emotional and/or behaviour regulation, the disorders in this category "are unique in that these problems are manifested in behaviours that violate the rights of others (e.g. aggression, destruction of property) and/or that bring the individual into significant conflict with societal norms or authority figures" (American Psychiatric Association, 2013, p. 461). The first onset of these disorders are in childhood or adolescence (American Psychiatric Association, 2013). Their causes vary greatly across the different disorders and may include temperamental, environmental and, genetic and physiological factors (American Psychiatric Association, 2013).

Disruptive, Impulse-Control and Conduct Disorders (American Psychiatric Association, 2013) specifically include:

1. Oppositional Defiant Disorder
2. Intermittent Explosive Disorder
3. Conduct Disorder
4. Pyromania
5. Kleptomania

A full and accurate explanation of the diagnostic features and wide range of co-morbid disorders associated specifically with each of the above Disruptive, Impulse-control and Conduct Disorders are beyond the scope of this paper and can be found in the DSM-V (American Psychiatric Association, 2013). What is most important to note at this juncture is that many of the symptoms of the Disruptive, Impulse-Control and Conduct Disorders or other disorders can occur to some degree in a typically developing individual (American Psychiatric Association, 2013). However, whether a child's behaviour difficulties are indicative of a disorder must be considered in light of the frequency, degree and duration of the presenting problems and whether they are severe enough to seriously affect the child's daily functioning at home, at school, and in the community (Children's Mental Health Ontario, 2013; Royal College of Psychiatrists, 1999 & 2014). Therefore, as explained in the DSM-V:

> …"it is critical that the frequency, persistence, pervasiveness across situations, and impairment associated with behaviours indicative of the diagnosis be considered relative to what is normative for a person's age, gender, and culture, when determining if they are symptomatic of a disorder" (American Psychiatric Association, 2013, p. 461).

2.13 Behaviour Difficulties and Problems in Children's Development

Assessments of children with respect to their behaviour, are often guided by understandings and assumptions about child development and behaviour (Mash & Terdal, 1997; Sattler, 1992; Sroufe, 1990; Sroufe, 1997; Royal College of Psychiatrists, 1999). As discussed in Chapter One, and according to Earle (2013, p. 123), "...children will display some degree of emotional or behavioural disturbance at various stages in their development, and these relatively transient perturbations

are an ordinary part of growing up". However for children with "more extreme or pervasive emotional or behavioural problems, or where the problems do not resolve" (Earle, 2013, p. 123), it will be necessary to seek assessment and/or support from various health professionals including psychologists (Earle, 2013). According to Earle (2013), various types of emotional and behavioural problems can arise in children as early as 0 to five years old, and persistent disturbances in these areas can be an early indication of a number of developmental problems including: speech and language disorders, learning disabilities and autism.

Hence, it will be necessary for various professionals who are in contact with young children, such as school psychologists, to be able to "identify children who are deviating from the expected developmental trajectory" (Earle, 2013, p. 123), ...as... "early identification allows the possibility of early intervention which can optmise outcomes" (Earle, 2013, p. 123). Therefore, as described below, the Ontario College of Psychologists (2012) indicated that school psychologists (in Ontario) should have a strong understanding of normal development across the lifespan, as this knowledge will be required to help determine when behavioural and/or emotional difficulties may in fact result from problems in a child's development. That is, while understanding the signs and symptoms of behaviour difficulties and/or disorders is critically important, it is crucial that they are assessed in light of whether a child is meeting certain developmental expectations (American Psychiatric Association, 2013), as this will affect the type of intervention that will be implemented . Further, as behavioural and/or emotional difficulties are linked to developmental problems, it is likely that a multi-modal approach to assessment, such as the Bio-Psycho-Social Model (explained above), would be the most promising as it promotes access to the skills, knowledge and expertise of a variety of educational, health, and mental health professionals including school psychologists (Cooper and Jacobs, 2011). In this way, optimal outcomes are more likely to be achieved for children with developmental problems that are at risk of developing emotional and/or behavioural difficulties (Cooper and Jacobs, 2011; Earle, 2013; Reisinger, 2014).

2.14 Prevalence of Behaviour Difficulties and Disorders

World-wide, the World Health Organization (WHO, 2014) estimates that 10-20% of children and adolescents experience mental health disorders as classified by the ICD-10. This includes but is not exclusive behaviour disorders with onset usually in childhood and adolescence (WHO, 2014). According to research studies and statistics conducted by Ontario's Offord Centre for Child Studies (2008), in North America alone, "one in five children…. today shows signs of an emotional or behavioural problem" ranging from mild to disordered (as defined by the DSM-V). Disruptive, Impulse-Control and Conduct Disorders appear to be more common among boys and more common in urban rather than rural areas (Offord Centre for Child Studies, 2008). Between five and fifteen percent of school-aged children are estimated to suffer from Oppositional-Defiant Disorder, while just over four percent of school-aged children are estimated to have Conduct-Disorder (Offord Centre for Child Studies, 2008). The DSM-V (American Psychiatric Association, 2013) and research by the Offord Centre for Child Studies (2008) have also indicated that other disorders including, but not exclusive to: Anxiety, Depression, Attention Deficit /Hyperactivity Disorder, and Specific Learning Disorder, can be co-morbid/co-exist with Disruptive, Impulse-Control and Conduct Disorders, or may in fact, manifest themselves as behavioural difficulties at school. However, as Children's Mental Health Ontario (2013, p.1) has indicated "the good news is that early diagnosis and treatment lead to better outcomes for children later in life".

2.15 The School Psychologist

As introduced in Chapter One, the school psychologist is one of the key professionals often called upon by schools and families to assess children presenting a wide range of behaviour difficulties at school. According to the International School Psychology Association (ISPA), the term 'school psychology' refers generally to those professionals worldwide "prepared in psychology and education who are recognised as specialists in the provision of psychological services to children and youth within schools, families and other settings that impact their growth and development" (ISPA, 2012, p.1). Various titles are given to those practitioners, nationally (Canada) and internationally, that provide school

psychology services, including: psychologist, educational psychologist, psychometrist, psychological associate, psycho-educational consultant and clinical consultant, among others. However, the title 'school psychologist' is largely used in most countries, including Canada, to describe those working in the field of school psychology (Jimerson et al., 2007). For clarity and ease, the term 'school psychologist' is being used within the context of this thesis.

2.16 Training of School Psychologists

Among the forty-three countries where school psychology exists, it is important to realise that there exists widely differing training programmes, regulatory/licensure processes, and assessment practices in the field of school psychology, resulting in wide variations in school psychology services (Jimerson et al., 2007). As Jimerson et al. (2007, p.2) indicated, "services within each country often reflect important historical, social, political, language, religious and geographic qualities". They may also reflect the level of development of the discipline within the country, the overall acceptance for the discipline of psychology and the actual need for psychological services (Oakland & Jimerson, 2007).

Differences in practice can therefore be affected by, and a function of: the training school psychologists have acquired, a lack of and/or differences in requirements for registration/licensure, work contexts, and the expectations of others in a particular setting (Copeland & Miller, 1985; Frederickson, Cameron, Dunsmuir, Graham and Monson, 1998; Jordan et al., 2009; Leydon, 1999; Lunt, 2002; Webster & Hoyle, 2000; Ysseldyke, 1978). This suggests that assessments of children presenting with behavioural difficulties at school may be subject to differences in approach that a particular school psychology service or even an individual school psychologist, chooses to apply.

It would therefore be beneficial for those in the profession worldwide, to critically review their training and licensure programmes to ensure that they consistently aim to meet, agreed international guidelines (International School Psychology Association, 2012). These guidelines should seek to achieve common goals in the

preparation of school psychologists while recognising and taking into account the enormous diversity and challenges which exists among different nations (International School Psychology Association, 2012).

The International School Psychology Association (2012) has provided 'International Guidelines for the Preparation of School Psychologists. These guidelines highlight that there must be an understanding and ongoing review of school psychologists' core knowledge, professional development, research/statistical skills, interpersonal skills, and ethical/professional values to ensure competence and create confidence in the profession of school psychology, worldwide (International School Psychology Association, 2012).

The Canadian Psychological Association (2007, p. 2) has explained that "school psychologists are unique among psychologists in that they have training and experience in both mental health and educational issues". However, as Canada does not in fact have a federal education system, each province, including Ontario, is responsible under the Constitution for its own education system and also for the training and regulation of its own psychological service providers (Saklofske et al., 2007). This is important to note as certification and the title of 'school psychologist' in some provinces may be awarded at a Masters Level while others require Doctoral Level training (Saklofske et al., 2007). In fact, ongoing debates over the appropriate and required level of training to be a school psychologist in Canada, the United States and abroad have continued for years and have not yielded a unanimous decision, to date (Brown, Swigart, Bolen, Hall & Webster, 1998; College of Psychologists, 2013; National Association of School Psychologists, 2010). The College of Psychologists of Ontario (2013) are in the process of amending regulations with respect to graduate psychology training and registration in order to become a psychologist in Ontario. At present, the use of the protected title of 'psychologist' in the area of school psychology or other recognised areas of competence requires a Doctoral Degree and registration with the College of Psychologists of Ontario (2013).

For the purposes of ease, clarity and cohesiveness within the context of this thesis, the term 'school psychologist' will be applied to all those working within the profession of school psychology in Ontario that are:

1. Registered School Psychologists (Doctoral Level) or Registered Psychological Associates (Masters Level/Equivalent), and
2. Not-Registered or unregistered professionals (Doctoral, Masters or 'Other' Equivalent Level of training) providing psychological services under the supervision of a Registered psychologist,

as well as to all other professionals working in Canada and abroad in the field of school psychology, that are trained according to the requirements in their own jurisdictions (College of Psychologists of Ontario, 2012; Saklofske et al., 2007).

2.17 Registration (Licensure)

In their review of forty-three school psychology services internationally, Farrell, Jimerson and Oakland (2007, p. 504) concluded that "school psychology is stronger when provisions exist for certifying and licensing school psychologists and legally mandating their services". As discussed earlier, variations in training and licensure (registration) are evident nationally (Canada) and internationally. However, as Farrell et al. (2007) explained, there is recognition in most countries of the need to ensure a high standard of professional practice in order for the profession to gain respect and become established. Therefore, it is important for school psychologists to become licensed or credentialed (Farrell et al., 2007).

Earlier it was explained that training and registration of school psychologists in Canada falls within the educational jurisdiction of individual provinces. Within Ontario, the College of Psychologists of Ontario is the body governing all psychologists (including school psychologists) with a mandate to protect the public's interests by monitoring and regulating practice (Association of Chief Psychologists with Ontario School Boards, 2012; College of Psychologists of Ontario, 2012). Their aim is to ensure that members of the public are protected from undue harm by receiving professional, ethical and competent service from qualified providers of psychological services (Association of Chief Psychologists

with Ontario School Boards, 2012; College of Psychologists of Ontario, 2012). It is also worth noting that communicating a 'diagnosis' is a "controlled act" in Ontario, and can only be done by a 'registered' psychologist/school psychologist (Association of Chief Psychologists with Ontario School Boards, 2012; College of Psychologists of Ontario, 2012).

The College of Psychologists of Ontario has defined school psychology as "the application of knowledge about human behaviour and development to the understanding of the social, emotional and learning needs of children, adolescents and adults, and the creation of learning environments that facilitate learning and mental health" (Association of Chief Psychologists with Ontario School Boards, 2012; College of Psychologists of Ontario, 2012). It has also outlined the standards, requirements and working knowledge base universal to all Ontario psychologists as well as the knowledge specific to their area of competence (for instance, school psychology). The core knowledge of psychology includes knowledge in: 1) the biological, cognitive, affective, and social bases of behaviour 2) individual differences in behaviour 3) learning 4) relevant ethical legal and professional issues 5) research design and methodology 6) statistics and 7) psychological measurement (Association of Chief Psychologists with Ontario School Boards, 2012; College of Psychologists of Ontario, 2012).

A school psychologist must also have a minimum knowledge base of: 1) intellectual, social, behavioural and emotional assessment 2) exceptional learners 3) normal lifespan development and cross-cultural differences in learning and socialisation 4) developmental and general psychopathology 5) instructional and remedial techniques 6) multidisciplinary team approach for case management 7) counselling, psycho-educational and early intervention techniques and 8) systems and group behaviours, within, and related to the school organisation (Association of Chief Psychologists with Ontario School Boards, 2012; College of Psychologists of Ontario, 2012).

Further school psychologists must also have the ability to:

1. ‘perform an appropriate psychological assessment’
2. ‘generate provisional hypotheses about possible causes of symptoms’
3. ‘formulate and communicate (if registered) a differential diagnosis or make and appropriate referral’
4. ‘plan, execute and evaluate an appropriate psychoeducational intervention’
5. ‘plan execute and evaluate appropriate prevention programs’

(Association of Chief Psychologists with Ontario School Boards, 2012; College of Psychologists of Ontario, 2012).

2.18 Professional Experience

Tesluk and Jacobs (1998) have indicated that most studies of work experience have defined it quantitatively (that is, in terms of length of years in a profession/job) rather than qualitatively (for example, opportunities for knowledge and skills development), due primarily to an absence of a guiding and integrated theoretical framework. Nonetheless, they also have argued that it is important to understand that “experience plays a central role in models of work performance and behaviour”, as well as in key areas such as career development and training (Tesluk and Jacobs, 1998, p. 321).

As discussed above, conducting a psychological assessment of a child’s behaviour difficulties is a complex process that requires training, knowledge and skills. As such, school psychologists are often called upon to conduct these assessments. Further, according to the New Brunswick Department of Education’s (2001) ‘Guidelines for Professional Practice for School Psychologists’, with respect to conducting a psychological assessment, “an experienced and well-trained psychologist can do this best”. This suggests that in conjunction with knowledge, skills and training, experience is important to conducting an effective psychological assessment.

In studies which have explored school psychologists' perspectives in various dimensions, for example, professional roles/functions/work characteristics (Brown et al., 1998; Hall, 2002; Miller & Jome, 2010), and treatment or management processes/methods (Gallant, Storch, Valderhaug & Gefken, 2007), 'years of professional experience' data is largely collected as a demographic descriptor. However, in a study about school psychologists' attitudes towards medical diagnostic consultation), findings indicated that school psychologists with more than ten years of experience (identified as 'veterans'), demonstrated "progressively more endorsement of medically related diagnostic services when provided access to more information, whereas less experience school psychologists demonstrated no comparable trend" (Wodrich, Tarbox, Balles & Gorin, 2010, p. 254). According to the researchers, understandable information about medical diagnostic procedures and "ample experience is what matters", in relation to this finding (Wodrich et al., 2010, p. 254). Conversely, the same study had shown that there was no significant difference found between more and less experienced school psychologists with respect to attitudes towards medical consultation without the addition of practice guidelines, or with research results coupled with guidelines (Wodrich et al., 2010).

In a second study which examined the relationship between professional practice and demographic characteristics of school psychologists, 'years of work experience' were found to be an informative factor influencing the results. (Curtis, Hunley and Chesno Grier, 2002). One of the main findings revealed that more experienced school psychologists have conducted a greater number of in-service programmes and served more students via consultation that their less experienced counterparts.

Hence, as demonstrated in the studies above, when conducting research studies of professionals such school psychologists, collecting 'years of work experience data' has value beyond its use as a demographic descriptor. It also has been shown to be a useful and informative factor in exploring and understanding school psychologists' attitudes, work performance and behaviour.

2.19 How are Behaviour Difficulties Assessed?: Assessment Methods

According to Coaley (2010, p. 6) "a psychological assessment refers to the integration of information from multiple sources in order to describe, predict, explain, diagnose and make decisions". In order to best address the needs of children who are demonstrating behavioural difficulties at school, it is critical that psychological assessments include an ongoing exploration of multiple domains of functioning (i.e, cognitive, academic, social, emotional, behavioural, adaptive functioning) in order to address a multitude of difficulties (Association of Chief Psychologists with the Ontario School Boards, 2012; Barkley, 1997; College of Psychologists of Ontario, 2012; McMahon & Estes, 1997; Waddell et al., 1999). This is a necessary as a prerequisite for designing, implementing and evaluating effective services for children, as well as to provide information that in certain cases, may necessarily facilitate a clinical diagnosis of a behaviour or other childhood disorder.

Assessing children with behaviour difficulties and/or possible disorders is therefore a complex process involving many different elements. Ollendick and Hersen (1984, p. 17) have argued that it is an "exploratory, hypothesis-testing process in which a wide range of information is reviewed in order to obtain a 'complete picture of the child' and the meaningful context(s) in which his or her behaviour occurs". Therefore, a psychological assessment relies on several sources of information that must be gathered and pieced together in order to accurately understand a child's behaviour difficulties, and so that interventions, recommendations and/or treatments, will help to ensure the best possible and successful outcomes for the child, family, and school (Flick, 2011; Ollendick & Hersen, 1984). Therefore, according to Ollendick and Hersen (1984, p. 17), "from this standpoint, a wide range of methods is not only necessary but desirable". These can include: a) interviews with parents, teachers, and child, b) behaviour checklists and rating scales, c) self-report instruments d) direct observation, e) standardised cognitive and academic achievement tests and f) projective techniques, to name a few (Mash & Terdal, 1997; Ollendick & Hersen, 1984; Wenar & Kerig, 2005).

Nonetheless, while Mash and Terdal (1997, p.31) concurred with the collection multiple of sources of data as important for yielding different types of information, they also argued that, depending on the purposes of the assessment "not all children should be assessed in all possible ways". As Mash and Terdal (1997) explained the assessment methods chosen should take into consideration, for instance, the actual purpose of the assessment (for example, screening versus the evaluation of current treatment/interventions), or the nature of the problem behaviour (for example, is it ongoing/chronic or acute).

The Association of Chief Psychologists with Ontario School Boards (2012) have outlined some of the methods and information sources recommended for Ontario school psychologists, when conducting a psychological assessment. These can include:

1. Parent/Guardian Interview
2. Review of the Ontario Student Record (OSR)
3. Teacher Interviews
4. Cognitive Tests
5. Methods to assess the possibility of learning difficulties, disabilities or disorders
6. Observation of Student (classroom, school yard)
7. Student Interview
8. Behavioural Rating Scales

Data gathered from these methods can provide the school psychologist with important information about the nature and potential causes of a child's behaviour difficulties and an understanding of the frequency, degree and duration of the behaviours that are present, which is necessary for formulating diagnosis and planning appropriate interventions (Association of Chief Psychologists with Ontario School Boards, 2012).

2.20 Limitations of Assessment Methods and Tests

According to Coaley (2010, p. 16) "competence in psychological assessment and measurement relies on the understanding of technical information so the quantitative and verifiable evidence is gained"…as the… "basis of psychometrics

lies in standardisation, reliability and validity". Hence, while assessment methods such as those described above may be recommended, it cannot be said that one or more of them does not have some criticism or controversy associated with them. Concerns about standardised tests are not new. As Bracken (1988) indicated, even tests purported to measure the same thing, can often produce dissimilar results for a number of 'psychometric reasons' including: floor effects, ceiling effects, item gradients, difference in norm table layout, use of grade or age equivalents for comparisons, reliability differences, skill differences assessed across tests, content differences across tests, differences in publication dates and the representativeness of the norming sample. Questions surrounding validity and/or reliability issues of particular tests, in relation to their applicability within certain demographic and/or cultural contexts, are also important to raise, as they must be addressed in order to provide valid and meaningful assessments (American Psychological Association, 1999).

As Coaley (2010, p 14) stated "there are good forms of assessment and bad ones-and there is bad use of good ones". Therefore, the key for school psychologists using any method(s) is to ensure there is appropriate training and competence in order to fully understand the method chosen, as well as how to administer and interpret it properly.

2.21 Identification and Diagnosis: Behaviour Classifications, Categories and Labels

Classification, categorisation and labelling of children with various difficulties and disorders is common practice within School Boards and other agencies, around the world (Florian et al., 2006). These categories and classifications may be used in an attempt to provide for children's needs and to evenly distribute available resources (Florian et al., 2006). However as Florian et al. (2006) argued, such discrete classifications may not always fully recognise the complexity of human differences. They may also result in the unfortunate outcome of stigmatising children, and do not always benefit those who are classified (Florian et al., 2006). It is also important to note that labels and categories can vary widely in different countries, and are therefore are shaped by many factors within these different contexts (Florian et al.,

2006). That is, the identification, classification, labelling or categorisation of behaviour difficulties or disorders may be dependent on whether a child's problem behaviour is considered to be significantly outside of the established social and cultural norms/expectations of society given the child's age and developmental level (Behaviour Problems in Children, 2011; Florian et al., 2006).

According to Florian (2006) ongoing debates of the issues surrounding the use of categorisation and classification continue. On the one hand (and similar to the debates surrounding theories of behaviour) children's exceptionalities, special needs, difficulties or 'disorders', are viewed by some as mostly intrinsic and caused by limitations and deficits within the individual (Florian et al., 2006). Conversely, there exists the view that limitations and deficits are actually within the educational systems and their difficulties accommodating the needs of the children they are intended to serve (Florian et al., 2006).

According to Florian et al. (2006, p. 44), while classification and categorisation may indeed be necessary to determine a child's eligibility for services..."classification systems are at their best when used to order complex information and bring benefit". In other words, one should always ask, "What the purpose of classification is, and what conceptual model best fits to bring benefit to the individual's so classified?" (Florian et al., 2006, p 44). That is, while the use of labels, categories and classifications may help to enlighten others about a child's complex needs and provide certain resources, what should be determined first and foremost, is what the purpose of the label is, and whether it will actually bring benefit to the child who is given the label (Florian et al., 2006).

Various classifications, labels and categories are presently and actively utilised by Ontario school psychologists during the assessment process of children referred with behavioural difficulties. Ontario (and other provinces in Canada) rely on what Florian et al. (2006) described as a "mix of classification schemes". These can include clinical categories, educational categories and administrative categories (Florian et al., 2006).

These discreet categories provide a type of framework to discuss and understand the various guidelines that impact on Ontario school psychologists' assessments of children with behavioural difficulties. These include:

1) Clinical categories (such as, different types of syndromes or disorders): In Ontario School boards and their associated agencies, clinical categories for behaviour difficulties include those behaviour disorders (or other disorders that may manifest themselves in behavioural difficulties) which are diagnosed as per criteria outlined in the DSM-V.

2) Educational categories (such as, different types of special educational needs, which may or may not overlap with clinical categories): In Ontario "five categories of 'exceptionalities' have been identified. These are taken from the Ontario Education Act definition of an 'exceptional pupil' (Ministry of Education, 2001). One or more of these categories may be assigned after an assessment is complete and a decision is made by the Identification, Placement and Review Committee (Ministry of Education, 2001, p. A18). These are: 1) Behaviour 2) Communication 3) Intellectual 4) Physical and 5) Multiple.

With respect to children with behaviour difficulties, the broad category of Behaviour is defined by the Ministry of Education (2001) as:

"A learning disorder characterised by specific behaviour problems over such a period of time, and to such a marked degree, and of such a nature, as to adversely affect educational performance, and that may be accompanied by one or more of the following:
a) an inability to build or to maintain interpersonal relationships
b) excessive fears or anxieties
c) a tendency to compulsive reaction
d) an inability to learn that cannot be traced to intellectual, sensory, or other health factors, or any combination thereof.

3) Administrative categories (such as levels of funding): In Ontario, an allocation or fixed number of referrals is often assigned to schools in order for students with

difficulties, behavioural or otherwise to be assessed. Over the past decade, the ISA (Intensive Support Amount) process has been one of the primary means by which Ontario School Boards are allocated funds. These funds are for the purchase of equipment essential to support students with special needs, in order that they may access the Ontario curriculum, as determined through an assessment by a qualified professional, such as a school psychologist (Ministry of Education, 2004). Children do not necessarily need to be identified as 'exceptional' or diagnosed with a disorder, but must meet the criteria set in the ISA guidelines (Ministry of Education, 2004).

2.22 Interventions for Children with Behaviour Difficulties

Interventions and/or treatments for children with behaviour difficulties will ultimately be determined by the nature of their difficulties and the causes of the problems they are expressing.

In an international review of the evidence for best practice models in the education of children with emotional and/or behavioural difficulties, Cooper and Jacobs (2011) have argued that the bio-psycho-social model (as discussed above) provides an important paradigm for the multi-modal problems of children with social, emotional and/or behavioural difficulties as it allows for a multi-disciplinary approach to intervention.

Cooper and Jacobs (2011) provided a comprehensive review of the interventions that support a more holistic approach to supporting children with emotional and behavioural difficulties. These included but were not exclusive to: a) the development of positive qualities in teachers to foster student engagement, b) in-service training, c) management of the physical environment (classroom), d) utilising the peer group as a classroom resource, e) behavioural strategies, cognitive-behavioural strategies, and functional behavioural analysis (with expert support) for enhancing teachers' skills , f) whole-school academic interventions, and whole-school behavioural management programmes g) small-scale on and off-site provisions (outreach schools, career academies), and h) multi-agency

interventions that offer a multitude of services such as, early identification through wide scale screening and community-based support and training for parents, to name just a few.

Discussions of children with disruptive behaviour, impulse-control or conduct disorders and/or other disorders (such as ADHD), and the use of medical interventions were not addressed in this international review, as acknowledged by Jacobs and Cooper (2011). However, they recommend that further international research reviews should focus on the use of medications and other interventions not addressed in their review, with an aim to combining those findings with their review.

Consistent with many of the interventions detailed in the international review of best practices by Cooper and Jacobs (2011), The Canadian Psychological Association (2007) has published Professional Practice Guidelines for School Psychologists in Canada which include an explanation of the 'Five Levels of Intervention' ideally provided by Canadian school psychologists to help support: a) students educational and mental health needs b) teachers, schools, and school boards, and c) parents/guardians in the home. They are: 1. Student-Focused Indirect Intervention, 2. Student-Focused Direct Interventions, 3. School-Wide Interventions, 4. District/System-Wide Interventions and 5. Research.

For children in Ontario who are presenting with various degrees or types of behaviour difficulties, Ontario school psychologists are able to provide a variety of services, both direct and indirect services in order to help reduce or resolve the problems (Association of Chief Psychologists with Ontario School Boards, 2012). Nonetheless, in Canadian school Boards, the amount of direct services offered to students can often be limited due to district policies and caseloads (Saklofske et al., 2007). When available, direct forms of behaviour intervention can include: conducting anger management and social skills groups, providing direct counselling, and establishing behaviour management plans (Association of Chief Psychologists with Ontario School Boards, 2012).

Indirect services provided by school psychologists can include: the development of individualised education programmes, conducting workshops in behaviour techniques, and the development of safe school programmes, to name a few (Association of Chief Psychologists with Ontario School Boards, 2012; Saklofske et al., 2007). Referrals to other community services, and consultation may also be offered (Saklofske et al., 2007). Registered (licensed) Ontario school psychologists are able to provide direct services (for example, counselling, cognitive-behaviour therapy) in which they are formally trained and in their area of competence, as recognised and approved by the College of Psychologists of Ontario (Chief Psychologists with Ontario School Boards, 2012). Nonetheless, following an assessment of a child's behaviour difficulties, school psychologists typically provide a series of recommendations, strategies or suggestions for school staff and parents to help support the child (which can include referral to other professionals) in their respective environments (Association of Chief Psychologists with Ontario School Boards, 2012). However, as discussed above, research on practice is limited and therefore Ontario school psychologists must also strive to be more active and engaged in the research process.

With respect to interventions and treatments of children diagnosed with a Disruptive, Impulse-Control or Conduct Disorder and/or other disorders (which may manifest as behaviour difficulties), interventions applied will depend on the disorder(s) diagnosed, and may/may not require prescription medications from a medical professional such as a family physician, paediatrician or child psychiatrist. Many of the interventions (such as cognitive-behavioural therapy, social skills training, family therapy, parent training) are used to support children with various disorders, and in conjunction with medical interventions, when prescribed (Offord Centre for Child Studies, 2008).

2.23 Conclusion

Many children will display some behaviour difficulties as a normal part of their development. However, there are a few children that will demonstrate more severe behaviour difficulties that can have serious consequences throughout the lifespan

and that will interfere with their ability to learn, develop and lead a normal life. This chapter introduced a number of important factors related to understanding and assessing children with behavioural difficulties. The following chapter will explore and discuss the few studies which have been conducted of school psychologists' practices and perspectives in the assessment of children with behavioural difficulties. They will be reviewed in light of the theoretical factors, school psychologist factors and assessment factors, which have been introduced in this chapter.

Chapter 3 School Psychologists' Practices and Perspectives in the Assessment of Children's Behaviour Difficulties

3.1 Introduction

A review of the literature highlights the serious impact which behaviour difficulties can have on children's lives. It also presents the Theoretical, School psychologist and Assessment factors that need to be considered in order to assess and support these children at school, home and in the community. This chapter will introduce, review and discuss the few studies conducted to date, that have examined school psychologists' practices and/or perspectives in the assessment of children referred with behaviour difficulties, in light of the above three factors.

Jesson, Matheson and Lacey (2011) have indicated that a literature review presents what is already known, and where gaps and/or contradictions exist in the existing knowledge. In fact, in order to answer the research question(s) "you only want articles that help you to answer the research questions" (Jesson, Matheson & Lacey, 2011, p.115). Hence, in order to locate articles that would help answer the research questions in the present study, the following steps were undertaken:

1. Key word searches in both psychological and/or education databases, internet book/journal searches, as well as manual journal/book stacks searches were conducted. Key words and/or combined strings of key words used during the review included: school psychologists, educational psychologists, assessment, behaviour difficulties, social emotional and behaviour difficulties (SEBD), behaviour disorders, behaviour problems, views, perceptions, perspectives, and surveys.

2. Inclusion Criteria for studies to be selected were set and included: a) survey research in the form of questionnaires and/or interviews regarding school psychologists' practices and/or perspectives in their assessment of children with behaviour difficulties, SEBD or behaviour disorders b) research studies conducted in Canada and/or internationally and c) an open timeline.

3. Exclusion criteria were also set, and were as follows: a) research studies which focused on school psychologists' general assessment practices b) research studies which focused on school psychologists' assessments of other specific difficulties or disorders (for example, learning disorders)

As a result, the literature review revealed three studies that were directly related and relevant to the present thesis. It is worth noting at this juncture, that the studies presented below were conducted in various countries. Therefore, as explained in the previous chapters, the definition of behaviour difficulties, the assessment processes undertaken, and the outcomes of the assessments are influenced by the contexts in which they occur. Nonetheless, these studies provide useful insights into how the factors above are related to and/or influence practices and/or perspectives to date, in the assessment of children with behaviour difficulties as well as the gaps which exist in the literature to date.

3.2 A Review of Existing Studies

3.2.1 Research Studies from the United Kingdom

The first study by McCall and Farrell (1991) involved a survey, of fifty-seven school psychologists from England who were randomly selected from county councils, metropolitan districts and London Boroughs, including rural and urban Local Education Authorities (LEAs). According to the researchers, the sample reflected a wide range of socio-economic conditions and classes. The school psychologists completed an anonymous written questionnaire requesting them to provide details of their most recent assessments of a child referred with Emotional and Behavioural Difficulties (EBD). The purpose of the study was to explore the specific methods used by school psychologists to assess children referred with EBD, and how these methods may impact and affect identification and placement outcomes (McCall & Farrell, 1991). Some of the main findings reported were that: a) more boys than girls were referred for an assessment b) most of the referrals were related to 'acting out' behaviours c) following an assessment, 71% of children were 'statemented' (an official written account of their special educational needs

detailing how and where these needs will be met) (Children's Services and Lifelong Learning, 2015), d) a high number of school psychologists use attainment and ability tests, e) most of the school psychologists favoured assessment based on interviews and observations to unravel emotional problems and, f) the average time to complete an assessment was 20.7 hours.

A second study surveying one hundred and seven school psychologists via postal questionnaire was conducted in England and Wales by Rees, Farrell and Rees, (2003, p. 35) with the main purpose or aim being to explore how school psychologists "deal with EBD referrals". School psychologists from a total of sixteen LEAs participated in the study, and were reported as being a representation of a mix of inner-city and rural based school psychology services. Concerns were raised by the researchers about the wide variations in practice which exists across school psychology services with respect to the assessment of children referred with emotional and behavioural difficulties, and its potential effects on outcomes and interventions. Hence, the study aimed to answer two main questions including: how students that were referred with EBDs were being assessed, and to what extent the practices of the school psychologists vary in relation to their assessments of children referred with EBD. Some of the main findings reported were that: most of the referrals were for boys, the majority of referrals were for acting out behaviours followed by aggression/violence, that 73% of school psychologists observed the student as part of the assessment, that 28% of students were 'statemented' (as described above), and that only 56% recommended or used what was referred to as a "therapeutic intervention" following an assessment.

3.2.2 Research from the United States

The final study reviewed was conducted in the United States by Shapiro and Heick (2004). From a sample of one thousand members of the National Association of School Psychologists stratified by regional distribution, six hundred and forty-eight school psychologists completed a survey either online or by postal questionnaire. The study examined the degree to which school psychologists are using various assessment in their routine assessments of children referred with

social/behavioural/emotional problems. 'Experienced' participants were also asked to report on how they believed their assessment practices had changed over the past decade. The findings indicated that along with individual measures of intelligence, achievement and perceptual-motor skills, there was an increased use of interviews (student interview, in particular), observation and rating scales, in 60-90% of the population. Among 'experienced' practitioners 75% reported an increased usage of behavioural assessment methods, and that they viewed these methods as well-linked to intervention.

Having briefly introduced the above three studies, the following section will begin by reviewing and discussing them in greater detail and in light of the theoretical factors, school psychologist factors and assessment factors presented in the previous chapter.

3.3 Theoretical Factors

In Chapter Two, Moore (2005) explained that is important for school psychologists to examine and be able to articulate the theoretical bases that underpin their decision-making and assessment practices, to ensure they are engaging in and achieving the highest standards possible in their professional practice. Given the importance of the reciprocal value of research and practice (Moore, 2005), it would be beneficial to explore the theories that influence school psychologists' practices and perspectives in their assessments.

The studies conducted by McCall and Farrell (1993) and Rees et al., (2003) did not report collecting any data from the school psychologists with respect to the theories that influence their assessments of children with behavioural difficulties. Therefore, it is not possible to determine if or how their theoretical orientations influenced their assessment practices.

The study by Shapiro and Heick (2004) collected data with respect to the school psychologists' 'Philosophical Approach' or theoretical perspectives to assessment. An 'Eclectic Approach' was favoured by 37% of the school psychologists, followed

by a Cognitive-Behavioural (32.4%), and a Behavioural Approach (12.2%). Much lower percentages were reported for the following approaches including: Psychodynamic (6.5%), Developmental (5.9%), Cognitive (3.5%), and Other (2.0%). However, this theoretical orientation data was basically used to describe the demographic characteristics of the sample, and was not used in any further analyses of the results. Therefore, while this study collected data with respect to the school psychologists' theoretical perspectives, it might have been useful to determine how this data was related to other factors in their study. Nonetheless, the data is helpful in terms of understanding the theoretical orientations that were most predominant in informing the school psychologists' assessments at that time.

The following section will now explore the above three studies in light of the School Psychologist factors discussed in Chapter Two.

3.4 School Psychologist Factors

A review of the literature highlighted that school psychologists are one of the key professionals that assess children referred with behaviour difficulties. The review emphasised that: a high level of training, registration (licensure), and work experience, are important factors that aim to develop competence and professionalism in school psychologists' daily work. This in turn, fosters greater trust in the profession within their communities. Therefore, it is beneficial and important to explore school psychologists' level of training, registration status, and years of professional experience of school psychologists, as they relate to their assessments of children referred with behavioural difficulties.

3.4.1 Level of Training

Chapter Two details the importance of a high standard of training for school psychologists. It is essential that training prepares schools psychologists to be both confident and competent. Hence, it is worthwhile to explore school psychologists' level of training when discussing any area of their professional work.

The studies conducted by McCall and Farrell (1993) and Rees et al. (2003) did not report collecting level of academic training data in their studies. References are only made to the various grades of school psychologists in the study (for instance, main grade or senior). Hence, it was not possible to determine whether levels of training influenced the practices and/or perspectives of the school psychologists in this study. Further, as this data was not collected it could not be analysed in light of other factors (for example, whether school psychologists' level of training affected the choice of assessment methods).

Shapiro and Heick (2004) collected the school psychologists' level of training data in their study. School psychologists with a Masters + 30 level, that is, a Masters Degree with thirty additional post-graduate semester hours (Freedheim & Weiner, 2003), accounted for 42.7% of the sample, followed by PhD/EdD/PsyD level (36.4 %) and Educational Specialist level (18.2%). Lower percentages were reported for Masters (5%) and 'Other' (2.5%). However, the level of training data in this study was essentially used as a demographic descriptor, and was not used in any further analyses of their results. Therefore, while the study by Shapiro and Heick (2004) collected data with respect to school psychologists' levels of training, it would have been useful to determine how this data was related to and/or influenced other areas of their study.

3.4.2 Registration (Licensure)

As discussed in Chapter Two, registration or licensure is an important factor in ensuring a high level of expertise, competence and ethical conduct in school psychologists' practices. Therefore, at a minimum, one should expect that registered school psychologists would be equipped to provide sound, ethical and high standards of knowledge, skill and practice to the communities they serve. Registration protects the public from undue harm by guaranteeing that school psychologists are properly trained, working within their areas of competence and not performing services (for example, counselling) that they are not trained and licensed to provide.

Of the studies conducted by Shapiro and Heick (2004), Rees et al. (2003) and McCall and Farrell (1993) none reported collecting data with respect to the school psychologists' registration status (licensure). Hence, it was not possible to determine from these studies whether registration status was a factor that was related to or influenced the school psychologists' practices and/or perspectives in their assessments, or whether it is related to any other factors in these studies.

3.4.3 Years of Professional Experience

Chapter Two highlights that collecting 'years of professional experience' can be a useful and informative factor in exploring and understanding school psychologists' attitudes, work performance and behaviour.

The studies by McCall and Farrell (1993) and Rees et al. (2003) did not report collecting the school psychologists' 'years of professional experience' data. Hence, it is not possible to determine whether this factor is related to the school psychologists' practices and/or perspectives in these studies, or how 'years of professional experience' is related to any other factors in these studies. The study by Shapiro and Heick (2004) collected 'years of professional practice' ranges. School psychologists with 21-25 years of experience comprised 25.6 % of the total sample. The remaining percentages for the other ranges included: 16-20 years (21.5%), 26+ years (20.1%), 0-5 years (15.7%), 11-15 years (12.8%) and 6-10 years (4.2%). Participants with six or more years of experience were referred to as the "experienced" group of school psychologists.

Findings in this study indicated that the experienced school psychologists reported an increased use of behavioural assessment techniques (direct observation, behaviour rating scales, checklists) over the years, and that this provided a valuable link from the assessment process to intervention (Shapiro & Heick, 2004). Hence, 'years of experience data' was not only collected as a demographic descriptor, but also provided information, albeit descriptive, about a link between the school psychologists' years of work experience, their assessment methods and the intervention practices.

The following section will now explore the above three studies in light of the Assessment factors discussed in Chapter Two.

3.5 Assessment Factors

A review of the literature in Chapter Two revealed that an assessment of a child's behavioural difficulties is a multifaceted process which aims to explore the nature and causes of a child's difficulties, by using a variety of methods that examine a multitude of domains of functioning. By ascertaining the frequency, degree and duration of problematic behaviours in conjunction with other important pieces of information, gathered over time, the school psychologist is able to determine the issues impacting the child's behaviour and whether or not a child's symptoms are indicative of a difficulty or the diagnosis of a disorder. The accurate identification of difficulties or diagnoses of disorders will also determine the types of recommendations and/or interventions that would best lead to successful outcomes for the child, family and school. Therefore, it is beneficial to explore school psychologists': assessment methods, diagnostic practices (including types of diagnosis and criteria used to make diagnoses), and recommendations and/or interventions, in relation to their assessments.

3.5.1 Assessment Methods

As discussed in the review of the literature, school psychologists are encouraged to use a variety of assessments methods to collect data that will provide them with a "complete picture" of the nature and causes of a child's behaviour difficulties. The studies by McCall and Farrell (1993), Rees et al. (2003), and Shapiro and Heick (2004) each collected data about the assessment methods school psychologists used when assessing children with behavioural difficulties. However, this data was collected for different purposes in each study.

McCall and Farrell (1993) indicated some concern in their study about the school psychologists' quality of work and whether it would stand up under rigorous scrutiny. This was, in part, tied to their choices of assessment methods. Findings indicated that over half the school psychologists never used personality tests in their

assessments of children with emotional and/or behavioural difficulties. The main conclusion is also curious with respect to two cases, whereby the school psychologists involved indicated that no contact was made with the children they were assessing. McCall and Farrell (1993, p. 166) explained that following the assessment "a decision was made purely through consultation with other professionals". This would seem to render the child somewhat invisible and incidental in the process. However, as the reason for the referral was unknown, there may have been a rationale (for example, an update or follow-up assessment) that would not require assessing the child directly. Nonetheless, this also raises questions as to whether the school psychologists in this study were trained, competent, experienced, and/or confident to use the assessment instruments indicated above. Therefore, while it is useful to ascertain which assessment methods are being used by the school psychologists, it is also important to understand the factors that may be influencing these decisions and practices. As discussed in the previous chapter, eliminating any measure may put at risk, the collection of pertinent information, needed for a 'statement' or diagnosis of a disorder. Hence, further analyses of the data and interviews with the school psychologists may have offered some insight into why they chose not to use personality tests.

Rees et al. (2003) also collected information about the assessment methods used by school psychologists in their assessments of children with behavioural difficulties. Cognitive tests were used in 41% of the cases. Reading tests were used in 51% of assessments. The researchers indicated surprise with how "relatively little assessment is being carried out using affective measures" (Rees et al., 2003, p. 45), and speculated that this "may reflect the lack of confidence" of the school psychologists had in their abilities to use them. This is noteworthy as more than 50% of the referred cases were due to acting out or violent/aggressive behaviour, yet, these measures were used in only 24% of the cases. As shown earlier in the study by McCall and Farrell (1993) it is useful to explore whether training, registration (licensure status), and/or experience might have been potential factors influencing the use/lack of use of any assessment method. Interviews may have also offered some insight as to why certain measures were not used. Importantly, as discussed in chapter two, the findings in this study brought to light that eliminating the use of any valid and reliable assessment method, aside from it not

being appropriate or necessary for the particular case, can place the possibility of making an accurate identification or diagnoses at risk.

Shapiro and Heick's (2004) study found that at that time, school psychologists' assessments of children referred with behavioural difficulties had changed over the past two decades. Intelligence, achievement and perceptual-motor skills tests continued to be used in more than 60% of cases, at the time of the study. However, experienced school psychologists' described an increased use of behavioural assessment methods or techniques (for example direct observation, behaviour rating scales, checklists) and that these techniques provided a valuable link from the assessment process to intervention. Hence, as Shapiro and Heick (2004) have shown, collecting information, albeit descriptive, about the school psychologists' years of experience, and comparing this to their choice of assessments, is valuable as it can provide information about the potential relationship(s) between professional demographic features and assessment methods adopted. However, further analyses and interviews may have offered greater insight into the extent and influence of this relationship.

3.5.2 Identification and/or Diagnosis

As discussed in Chapter Two children can demonstrate a wide range of behaviour difficulties that may result in the diagnoses of a disorder. As school psychologists conduct psychological assessments of children referred with behaviour difficulties it is important to know the types of diagnoses or difficulties that typically result from their assessments as well as the diagnostic criteria (for example, DSM-V or ICD-10) they used to help them formulate their diagnoses.

In the studies conducted by McCall and Farrell (1993), Rees et al. (2003), and Shapiro and Heick (2004), they did not report collecting the diagnostic criteria used or the types of diagnoses/difficulties that were identified, in the school psychologists' assessments. Hence, there is no indication of the range of behaviour difficulties and/ or disorders that the school psychologists are able to identify or diagnose. This information would be useful to determine whether it may have any

relationship to or implications for, the assessment methods used, the types of interventions offered, the expected levels and/or content of training programmes, as well as registration requirements.

3.5.3 Interventions

A review of the literature outlined the types of interventions that school psychologists can recommend or implement to support children with behavioural difficulties. Intervention is directly tied to the nature and causes of the difficulties and the results of the assessment. Hence, direct and/or indirect interventions may be applied.

Shapiro and Heick (2004) did not report collecting any information in their study about interventions following assessments of children referred with behavioural difficulties. Hence, it is not possible to determine the factors that may influence the interventions offered, following an assessment.

The study by McCall and Farrell (1993, p.167) reported that approximately 60% of the school psychologists in their study "recommended some form of 'therapeutic intervention' following an assessment". This may or may not have included "a recommendation for a change of school" (McCall & Farrell, 1993, p.167). Other forms of intervention included a recommendation of counselling or a behavioural approach by nearly half" of the school psychologists, while "a few" mentioned hypnotherapy and family therapy (McCall & Farrell, 2003, p.167). Hence, there is some indication of direct interventions being used. There was no indication as to whether indirect, school, or system-wide approaches were used. There was no further analyses of possible relationships between the interventions used and any other factors.

Rees et al. (2003) reported that there were wide interpretations by the school psychologists of the term 'therapeutic intervention" and that only 56% of the sample responded to the question. While counselling, solution-focused, behaviour management programme, circle of friends and behaviour modification programme were mentioned most often, individual school psychologists stated that private

prayer, conjoint diary, drugs withdrawal programme and personal constructs were recommended. The focus seemed to be on individual or small group interventions, with no indication of school or system-wide approaches. Again, there was also no further analyses of possible relationships between interventions offered and any other factors.

3.6 Summary of Findings

This chapter reviewed the findings of the few studies which have researched school psychologists' practices and/or perspectives in the assessment of children's behaviour difficulties, to date. The studies by McCall and Farrell (1993), Rees et al. (2003), and Shapiro and Heick (2004) were reviewed and discussed in light of the Theoretical, School Psychologist and Assessment factors presented in Chapter Two. These studies offered some insight into the school psychologists' practices and/or perspectives in their varied contexts. However, data for many of the factors were either not collected/available in some of studies (for example, level of training, registration status), or used in isolation as descriptors (for example, theoretical orientation). For the most part, there was also no further analyses of the data collected to determine if there were any potential relationships between the various factors. Finally, it appears that in all three studies, the use of interviews may have been helpful in explaining or clarifying certain issues.

3.7 The Research Questions

A review of the literature in Chapters 1, 2 and 3 demonstrates the importance and complexity of the Theoretical Factors, School Psychologist Factors and Assessment Factors that are involved in school psychologists' assessments of children with behavioural difficulties. This study will explore how these factors influence Ontario school psychologists' practices and perspectives in their assessments of children referred with behaviour difficulties. This study is being conducted with a view to making a contribution to: a) school psychologists' professional knowledge and development at the local, national and international level, and to b) the existing knowledge in the field.

This thesis will therefore attempt to answer the following research questions:

1. What do Ontario school psychologists indicate are the factors that are related to and/or influence their assessments of children referred with behavioural difficulties?

2. What do Ontario school psychologists indicate are their rationales for adopting any practices and/or perspectives in their assessments of children referred with behavioural difficulties?

3.8 Conclusion

A review of the literature and research in Chapter Two and Chapter Three revealed the importance and complexity of defining, assessing, identifying and supporting children with behaviour difficulties. School psychologists are often called upon to assess children that are demonstrating a wide range of problematic behaviours. Yet there is a scarcity of studies which explore school psychologists' practices and/or perspectives in their assessments of children with behaviour difficulties. Of the few studies which do exist, little is known about the Theoretical, School Psychologist and Assessment Factors that influence school psychologists' practices and perspectives, and whether or how these factors are related to one another. The purpose of the present study, therefore is to make a contribution to the existing body of knowledge, by exploring the factors which are related to and/or influence Ontario school psychologists' practices and perspectives in their assessments of children referred with behavioural difficulties.

Chapter 4 Methodology and Methods

4.1 Introduction

This chapter will provide an explanation of the methodology and methods used in this thesis. In order to answer the research questions posed in Chapter Three, the present study was conducted using mixed methods research with a sequential explanatory research design. An explanation of, and rationale for, using this research design is presented. Further, this chapter describes the samples chosen, the research methods utilised, as well as an explanation of the types of data analyses applied. Reliability, validity, and ethical issues are also addressed.

4.2 Research Design: Mixed Methods Research

According to Crotty (2004, p. 14) what remains critical to effective research is that we "forge a methodology that will meet our particular purposes in this research" Crotty (2004, p.14). In light of the research objectives and research questions, the researcher of this study has decided to use Mixed Methods research.

Spratt, Walker, and Robinson (2004, p. 2), have indicated that "mixed methods research is a "rapidly evolving field of study, conceptually and practically". Mixed methods has been generally defined as, combining the use of quantitative and qualitative methods in order to capitalise on the strength of each method, while offsetting each of their different weaknesses (Creswell & Plano Clark, 2011; Spratt et al., 2004; Teddlie & Tashakkori, 2003).

As Teddlie & Tashakkori (2003; 2009) explained, mixed methods research adopts a pragmatic world view that rejects an either-or approach associated with traditional research paradigms. Rather, it is for the researcher to determine and judge whether an exclusive reliance on any single approach would ignore important aspects of the research question and/or problem (Bryman, 1992). By conducting mixed methods research, the researcher has therefore decided that "collecting diverse types of data best provides a more complete understanding of a research problem than either quantitative or qualitative data alone" (Creswell, 2014, p.19). That is, it has been

determined that mixed methods provides a better means of answering the research questions than either approach could do on its own (Creswell & Plano Clark, 2011; Spratt et al., 2004; Teddlie & Tashakkori, 2003).

It is important to note however, that what defines and constitutes a mixed methods approach, how samples are to be gathered, issues of how to achieve legitimacy or validity, and how to integrate mixed research methods, remain ongoing subjects of debate and contradiction (Collins, Onwugeubuzie & Jiao, 2007; Spratt et al., 2004; Teddlie & Tashakkori, 2003; Yin, 2006). There remains little consistency in the definition of the term "mixed methods" and how it is applied in the research literature (Creswell & Plano Clark, 2011; Spratt et al., 2004; Teddlie & Tashakkori, 2003).

Hence, for the purpose of this study and as per the research literature (Angell & Townsend; 2011; Creswell & Plano Clark, 2011; Spratt et al., 2004; Teddlie & Tashakkori, 2003, 2009; Yin, 2006;) a mixed methods study includes:

a) The collection of both quantitative and qualitative data via the use of quantitative and qualitative methods.

b) Quantitative and qualitative data that is collected sequentially or simultaneously, with an indication which stage was completed first or has priority.

c) Combining and encapsulating quantitative and qualitative data within the research study in order to guide and integrate the study as a whole. Data collection via two different methods are analysed, compared, summarised and synthesised in order to provide a full and integrated account.

4.3 Rationale for Using Mixed Methods Research in the Present Study

In order to answer the research questions posed in Chapter Three it was determined that mixed methods research using a sequential explanatory design would be the best approach. Very few studies have been conducted, and hence very little is reported and known about school psychologists' practices and/or perspectives in the assessment of children's behavioural difficulties. As discussed in Chapter 3, key word searches in both psychological and/or education databases, internet book/journal searches, as well as manual journal/book stacks searches, revealed three studies that are directly related and relevant to the present thesis. Of the three studies which do exist, they have either not collected data with respect to some of the important 'theoretical', 'school psychologist' or 'assessment factors' that are related to the assessment of children with behaviour difficulties, and/or the information collected was mostly descriptive, with little or no analyses of the potential relationship between factors. The amount of data was also limited in these studies due partly to the fact that only one method was used to gather it (that is, questionnaire). Therefore, more in-depth explanations and elaboration could not be attained. The present study aims to provide a more integrated and complete picture of the factors that are related to and/ or influence Ontario school psychologists' practices and perspectives. This will be accomplished by using mixed methods research in order to gather both the necessary factual and/or descriptive data, as well as, the important and in-depth explanatory data.

The first research question was mostly concerned with ascertaining information of a more descriptive and/or factual nature including information about: the school psychologists' professional backgrounds, their theoretical orientation(s) with respect to the assessment of children's behaviour difficulties, their choice and use of assessment methods, the types of diagnostic criteria applied and diagnoses made, as well as, their intervention practices. Conducting a survey, using a self-administered postal questionnaire is an accessible means of retrieving significant amounts of descriptive and/or factual information from a large and sometimes geographically dispersed group of people in a relatively short period of time (Cohen, Manion & Morrison, 2003; Robson, 2004). Within the context of this study, administering a postal questionnaire allows for the collection of a large

amount of more quantitative and quantifiable data, from a geographically dispersed group of Ontario school psychologists, in a timely and efficient manner.

The second research question aimed to gather more explanatory information and achieve more in-depth understandings of the school psychologists' rationales and reasoning for adopting any practices and/or perspectives in their assessments. According to Cohen et al. (2003), research interviews can serve three particular purposes including: a) a principle means of gathering information in order to meet the research objectives b) a means of testing hypotheses, suggesting new hypotheses or as an explanatory device which can help to identify variables and relationships and c) they may be used with other methods in research (such as a postal questionnaire) to further explore or understand the deeper motivations of the participants or to follow-up on unexpected results. They enable the researcher "to explore complex issues in detail" (Brown & Dowling, 2003, p. 72).

Combining the quantitative and qualitative data collected within the research study via these two different methods aims to provide a full and integrated account of Ontario school psychologists' practices and/or perspectives in the assessment of children referred with behavioural difficulties.

4.4 The Use of a Sequential Explanatory Research Design in the Present Study

As discussed above, the present study uses a mixed methods sequential explanatory design. According to Creswell (2014), this involves a project conducted in two phases, whereby the researcher collects and analyses quantitative data in the first part, in order to build on and plan for the second, qualitative part of the study. "The overall intent of this design is to have the qualitative data help explain in more detail the quantitative results" (Creswell, 2014, p. 224). Hence, the present study includes:

1.) The collection of both quantitative and qualitative data via the use of self-administered postal questionnaires and semi-structured interviews.

2.) Quantitative and qualitative data that is collected sequentially. For this research study, the postal questionnaire is given priority and administered first. Following the detailed analyses of the postal questionnaire data, the semi-structured interviews, which include the use of hypothetical vignettes (discussed below), are conducted.

3.) Combining and encapsulating quantitative and qualitative data within the research study in order to guide and integrate the study as a whole. Data collection via the self-administered post questionnaire and semi-structured interviews are analysed, compared, summarised and synthesised in order to provide a full and integrated account of Ontario school psychologists' practices and perspectives. The data are integrated and combined in order to answer the research questions in a comprehensive and unified manner.

4.5 Using Vignettes within the Context of Interviews

Vignettes are a research tool used in various disciplines in both quantitative and qualitative studies (Barter & Renold; 1999; Jenkins, Bloor, Fisher, Berney & Neale, 2010; Renold, 2002). According to Renold (2002) they can be used as a self-contained research method, or as an adjunct method to other research techniques. Hence, they can "either enhance existing data or generate data not tapped by other research methods" (Barter & Renold, 1999, p. 2). Vignettes have been defined in similar ways for both quantitative and qualitative research but most simply have been described by Renold (2002 p. 3) as "short scenarios or stories in written or pictorial form which participants can comment upon", the aim of which is to "elicit perceptions, opinions, beliefs and attitudes from responses or comments to stories depicting scenarios and situations" (Barter & Renold, 1999).

According to Renold (2002) vignettes are used in qualitative research in a variety of ways including: a) exploring beliefs and general attitudes in order to ask questions about how participants would respond (what they would do) in a certain situation, b) to have participants provide or bring their ideas to a more vague context, c) as a complementary method to other research methods, d) to discuss sensitive topics, e) to help add authenticity or reality to discussions, f) to provide

context where there is lack of participant experience or and g) to offer opportunities to compare disparate groups.

With respect to the present study, the vignettes are part of the semi-structured interview schedule. Vignettes aim to provide a familiar context, 'typical' situation, and more 'authentic' setting, in order to discuss the assessment of children with behavioural difficulties. The school psychologists are invited to discuss their approach to the assessment by considering two children, of different ages, genders, and different behavioural difficulties in order to help the researcher gain even greater insight into their thoughts and rationales during the assessment process.

4.6 Sampling

In their review of mixed methods sampling guidelines, Teddlie and Yu (2007, p. 96) stated that "the sampling strategy should stem logically from the research questions"…, and that the exclusive use of non-probability (purposive) sampling techniques is appropriate in some studies.

Non-probability sampling is "a group of sampling techniques that help researchers to select units from a population that they are interested in studying"…and the… "samples are selected on the subjective judgement of the researcher" (Laerd, 2012, p.1). Hence, there is selectivity built into non-probability samples which "derives from the researcher targeting a particular group, in the full knowledge that it does not represent the wider population; it simply represents itself" (Cohen et al., 2003, p. 102). Further, these non-probability sampling techniques can be used in qualitative, quantitative and mixed methods research (Laerd, 2012).

This present study is exploring the factors that are related to and/or influence the practices and/or perspectives of a limited number of Ontario school psychologists. That is, the sample of school psychologists in Part One of this study is a sub-group of a markedly larger professional group of practitioners in Ontario. Therefore, non-probability (purposive) sampling is an appropriate technique to obtain the samples necessary to help answer the research questions in this study.

In order to maintain a single integrated study, Part Two consists of a smaller 'nested sample' of the Ontario school psychologists from Part One of the study (Yin, 2006). By concentrating on a sub-group of school psychologists, it is possible to closely and consistently explore factors that influence their practices and perspectives.

However, it is important to note that the findings of this study will not, and cannot, be considered universal or generalised beyond the sample in question. That is, due to the size and nature of the samples, this study does not, and indeed cannot, attempt to make generalisations about the practices and perspectives in the wider population of school psychologists in Ontario, or in Canada for that matter (Cohen et al., 2003; Laerd, 2012).

4.7 The Research Participants

4.7.1 Part One: The Postal Questionnaire Participants

According to Cohen et al. (2003) and Robson (2004) the principle guiding sample selection when using 'purposive sampling' is 'typicality' or 'interest', which is based on the researcher's judgement. The choice of sample in this study is grounded in the researcher's need to meet and satisfy the specific objectives of the research which, in this instance, is exploring the practice and/or perspectives of Ontario school psychologists in their assessments of children referred with behaviour difficulties. Participants were initially selected from the directory listings of the Association of Chief Psychologists with Ontario School Boards. That is, Chief Psychologists were the first point of contact, with the purpose of recruiting as many school psychologists as possible, from their psychological service departments/agencies, in a limited amount of time. Chief Psychologists were instrumental to accessing groups of school psychologists that met the criteria to participate in this study. As described in Chapter 2, Ontario school psychologists participating in this study include all those working within the profession of school psychology in Ontario that are: a) Registered School Psychologists (Doctoral Level) or Registered Psychological Associates (Masters Level/Equivalent) and b) Not-Registered or unregistered professionals (Doctoral, Masters or 'Other'

Equivalent Level of training) providing psychological services under the supervision of a registered psychologist.

Therefore, using purposive sampling, postal questionnaires were administered to fifty-six (56) school psychologists from six psychological services departments in the publicly funded school boards and/or associated private or community psychological services sectors, within various general regions of the province of Ontario. Of the above sample, thirty-nine (39) postal questionnaires or seventy-percent (70%) were returned to the researcher. This is generally above the expected rate of return for postal questionnaires which ranges from forty percent (40%) to sixty-one percent (61%) (Cohen et al., 2003; De Vaus, 2004).

4.7.2 Part Two: The Semi-Structured Interview Participants

As indicated in Part One of the study, purposive sampling includes potential participants which, in the researcher's judgment are typical and of interest to satisfy the specific requirements and needs of the research (in this instance, Ontario school psychologists) (Cohen et al., 2003; Robson, 2004). Snowball sampling is a type of purposive sampling (Laerd, 2012; Robson, 2004; Trochim, 2006). According to Robson (2004, p. 265) this includes the researcher identifying "one or more individuals from the population of interest"…who… "after they been interviewed they are used as informants to identify other members of the population, who themselves are used as informants". It can be helpful when the target population is inaccessible, hard to reach, or difficult to find (Laerd, 2012; Robson, 2004; Trochim, 2006).

For the purposes of this research study, it was proposed and accepted that 5-10 school psychologists would be interviewed for Part Two of the study. Purposive sampling (including snowball sampling) was used to recruit Ontario School Psychologists from the six psychological services departments from Part One of the study, for the interviews. This yielded a nested sample of 5 participants for the in-depth semi-structured interviews. The process occurred in five stages, as described below:

Stage 1: Purposive sampling was initially used to draw a sample from the researcher's target population. A letter of invitation explaining the research study was sent by post to Chief Psychologists from two psychological services departments. The letter introduced the researcher and explained the aim of the study, with a request to distribute letters of invitation to participate to their staff. However, this first stage yielded no response and zero (0) participants.

Stage 2: Purposive sampling continued with telephone calls to Chief Psychologists of another two psychological services departments. The telephone calls introduced the researcher and the research study to the Chief Psychologists, followed by an email with letters of invitation (if agreed by the Chief Psychologist). This yielded two (2) potential participants. While appointments were arranged with both participants, only one participant completed the interview. This was a telephone interview as the participant was unable to meet for the interview. The second potential participant cancelled the interview on the day of interview, with no response when approached to reschedule. Hence, this stage yielded one (1) participant.

Stage 3: Upon completing the interview with the one participant in Stage 2, snowball sampling was initiated to contact two more potential participants from the same service, but who were not available at the office location, at the time of the study. Emails with letters of invitation as per Stage 1, were sent to the two potential participants. This yielded no response by the first potential participant and an e-mail agreement to participate by the second potential participant. However the second potential participant did not respond to follow-up emails to schedule the interview. Hence, zero (0) participants were yielded in this stage.

Stage 4: Purposive sampling was used to contact Chief Psychologists with two more psychological services departments. As per Stage 2, phone calls were made, followed by sending emails with letters of invitation. Results from these contacts yielded four (4) participants who completed face-to-face or in-person interviews in their offices during office hours.

Stage 5: Following the completion of the above four interviews, two new potential participants invited at previous stages contacted the researcher by telephone (text) to enquire about participating in the research. Letters of invitation introducing the researcher and explaining the research were sent by email again to ensure the potential participants were in possession of all required information and details. An appointment for an interview was scheduled with one participant, however the participant did not attend, therefore the interview did not occur. This same interviewee re-contacted the researcher two weeks later to possibly reschedule the interview. However, a follow-up attempt to set a date and time via email for the interview yielded no response. The remaining potential participant that contacted the researcher did not respond to follow-up emails to schedule interviews. Hence, these final two contacts yielded zero (0) additional participants.

4.8 Methods

According to Crotty (2004, p. 3), research methods are the "techniques or procedures used to gather and analyse data related to some research question or hypothesis". In order to effectively answer the research question in this study, it is necessary to explore beyond the facts of 'what' school psychologists 'do', and to also consider 'why' they do it. That is, it is important to understand how school psychologists conduct their assessments as well as, the factors that influence their decisions, practices, perceptions and rationales. This is best accomplished through a mixed methods research design that uses a combination of methods that can ascertain the data required to answer the research questions. The use of both self-administered postal questionnaires and semi-structured interviews is therefore the most appropriate approach to explore all areas required to answer the research questions. As Oakley (1999, p. 156), explains, a combination of approaches encourages research that moves "beyond the confines of the dialectical language about the advantages and disadvantages of 'qualitative' and 'quantitative' methods"… by focusing on the "appropriateness of the method to the research question".

4.9 Self-Administered Postal Questionnaire: Design

A self-administered postal questionnaire, permits the targeting of key areas of interest in relation to the research topic through the use of precise questions designed to gather the required information (Robson, 2004). It also allows, though in a somewhat limited manner, for the expression of views, information and insights into the areas of interest through the use of open-ended questions (Robson, 2004).

In order to inform, develop and operationalise effective and relevant questions for the postal questionnaire, a review of: a) the current and most relevant literature with respect to the assessment of children's behaviour difficulties/disorders b) the framework of any instruments used in similar studies, as well as, c) the results from the pilot study of the postal questionnaire, was undertaken. These steps were carried out in order to establish greater confidence in the postal questionnaire as a valid research instrument, and to ensure that it is an effective, useful and successful research tool to answer the research questions for this study.

The self-administered postal questionnaire underwent changes in design, content and format prior to and following the pilot. Decisions about the layout, including the number of pages, question wording, question types, the ability to elicit accurate information, the ability to ensure respondent comprehension, as well as other factors, are necessary to extract the maximum amount of relevant and useful data possible (Cohen et al., 2003; Robson, 2004).

Questions about the school psychologists' professional backgrounds, theories of children's behaviour difficulties, assessment methods, diagnoses, and interventions, are guided by and drawn from the professional and academic literature. They are also informed by and grounded in the principles of good practice set out by the Chief Psychologists of Ontario School Boards (2012), the College of Psychologists of Ontario (2012), as well as, general guidelines from the International School Psychology Association (2012).

In designing the postal questionnaire, it is necessary to determine which variables are better suited to respondent interpretation and which variables should incorporate

or require a response from a predetermined set of possible options. For the purpose of this research study, a combination of both open-ended and closed questions are used. Closed questions (for example, yes/no, tick boxes) are incorporated in the questionnaire in order to gather very specific information. Open-ended questions, though fewer, allow for further discussion of particular areas with an emphasis on gathering views/opinions in relation to the given areas of interest. The questionnaire includes a number of rating scales targeting various elements of the school psychologists' practice in order to gage the school psychologists' views.

Questions that allow the participants to quickly engage with the questionnaire (for example, tick boxes, yes/no questions) are mostly incorporated at the beginning of the questionnaire. Questions that require greater personal input are placed midway and dispersed evenly throughout the remainder of the questionnaire in order to facilitate a greater investment in participation. The questionnaire therefore, attempts to answer the research question by gathering information from the school psychologists using different questioning strategies.

A pilot study was conducted to test the self-administered postal questionnaire. It can be located in Appendix A. The final version of the self-administered postal questionnaire is found in Appendix B.

4.10 Self-Administered Postal Questionnaire: Procedure

As this mixed methods study has a sequential explanatory design, the postal questionnaire is administered first. This allows the researcher to get an overview of the areas of interest by gathering large amounts of data including: factual information (such as, professional background), as well as information about the school psychologists' practices and perspectives with respect to the assessment of children referred due to behaviour difficulties.

In order to gain access to school psychologists from various, geographically dispersed areas in Ontario, it is first necessary to make contact with the Chief Psychologist of each of the Psychological Services Departments. Letters of

invitation are sent to the Chief/Supervisory psychologists from each of the psychological services departments. The letter introduces the researcher both as a school psychologist and student in the doctoral programme, as well as, explaining the purpose of the study and respectfully requesting that the Chief/Supervisory Psychologists to distribute questionnaire packages to each of their staff members. If he/she agrees to distribute the questionnaire packages, the Chief Psychologist is invited to confirm this by responding to the researcher's email address and to indicate how many packages are required.

The requested number of questionnaire packages are boxed and sent by courier at the researcher's expense to the participating Psychological Services Departments to distribute to their staff. An individual unmarked envelope including covering letter for each participant details the aim of the postal questionnaire and encourages a two week deadline date for submission. Individual, addressed, and postage-paid envelopes are provided in an otherwise unmarked envelope in order to facilitate ease of return. In order to encourage a higher return rate, an incentive of a ball point pen is included for each of the potential respondents to use to complete the questionnaires.

4.11 The Semi-Structured Interview Schedule: Design

A semi-structured interview is one in which the schedule or guide "has predetermined questions, but the order can be modified based upon the interviewers perceptions of what seems most appropriate" (Robson, 2004, p.270). Using this type of interview format, the researcher has flexibility and is able to change question wording, omit unnecessary or inappropriate questions, or add additional questions as the situation arises in the interview discussion (Cohen, et al., 2003; Robson, 2004). Therefore, sufficient flexibility is built into the design of the semi-structured interview to permit and create the conditions for the researcher to extrapolate as much information as possible about any new, pertinent and useful data related to the research questions, when the opportunity presents itself. This type of interview also permits an increased ability to compare responses due to the fact that respondents answer the same questions and that data collected for each interviewee

on the required topics is complete (Cohen et al., 2003). Hence, this facilitates greater organisation when analysing the data set (Cohen et al., 2003).

As suggested by Robson (2004) and Cohen et al. (2003), the preparation of the interview schedule is key to its ability to achieve success in reaching the research objectives. As Robson (2004) suggests, the format of the questions for the semi-structured interview for the present research study should begin by including: introductions to the researcher and the study, assurances of anonymity, request for permission to tape-record the conversation, and a reminder of the participant's right to withdraw from the interview at any time.

This is followed by easy, non-threatening, closed-ended questions (for instance, to gather factual information about the participants' professional background) and other matters of fact, or logistical/nominal information (Robson, 2004). According to Robson (2004, p. 277), the main body of interview schedule includes the "main purpose of the interview in what the interviewer considers to be a logical progression of questions". This includes a few closed-end questions and a majority of open-ended questions in order to allow open discussion and address the relevant issues within each of the areas of interest. The two hypothetical vignette/case scenarios are introduced as part of the interview at this time, and are used to encourage targeted and enhanced discussion, elaboration and clarification about the school psychologists' perspectives and practices in relation to the assessment of children referred with behaviour problems. However, according to Jenkins et al. (2010) and Renold (2002), what is essential is that they are designed effectively to yield the desired response.

In a review of the literature regarding vignette design, Barter and Renold (1999) and Jenkins et al. (2010) indicated that stories and scenarios must appear to be plausible and real to participants, and offer 'often seen' or 'usual' events or circumstances, in order for them to be able to discuss their experiences. Further there needs to be "sufficient context" within the vignettes in order for the situation to be fully understood while compelling or forcing participants to provide additional information or discuss factors that affect their decisions (Barter & Renold, 1999). As discussed above, Barter and Renold (1999) indicated that vignettes should be

presented in an acceptable and appropriate format (for instance written, pictorial, video). It can also be helpful to incorporate what Barter and Renold (1999, p.5) described as a "control vignette to see if any significant differences emerge". The two hypothetical vignettes in this study have taken into account all of these recommendations for their design. Further, these vignettes were adapted from sanitised vignettes from the research literature to meet the needs of this research study, and to complement the semi-structured interview process.

Hence, the decision to incorporate a mix of question types in the semi-structured interviews (including two vignettes), aims to encourage expansion, greater depth and insight in areas of information which could not be sufficiently gathered via the use of the postal questionnaire. This is also accomplished, as Robson (2004) explained, through the use of prompts and probing that would not otherwise be available except in the context of a discussion with the school psychologists. Final questions on the interview schedule permit what Robson (2004, p.277) described as a "cool off" time and allow the participants to voice any concerns or ask any questions about anything to do with the interview process, prior to thanking them for their participation and ending the interview.

A pilot study was conducted to test the semi-structured interview schedule. The pilot study can be located in Appendix A. The final versions of the semi-structured interview schedule and the vignettes are found in Appendix C and Appendix D, respectively.

4.12 Semi-Structured Interview: Procedure

Upon confirmation of willingness to participate the researcher set an appointment time to meet the participant at his/her office during office hours. Participants are given the option to participate in a telephone interview if a face-to-face interview is not convenient. Four of the five participants took part in a face-to-face interview while one participant completed a telephone interview. The procedure for the telephone interview follows the same steps as outlined below. All participants were emailed the two vignettes in advance prior to proceeding with the interviews.

At the time of interview, the researcher introduces herself, and re-iterates the aims of the study. This is followed by a reminder that the interview is completely voluntary and that the participant has a right to withdraw at any time. The participant is also reminded mind that the interview is being recorded only to ensure accuracy of response. The participant is assured by the researcher that his or her identity will remain completely anonymous. The participant is asked to confirm understanding of all instructions and is given the opportunity to ask any questions or voice any concerns. Once the participant agrees and expresses a full understanding, the interview proceeds. Each interview is approximately 30-35 minutes from beginning to end. Following the interview, the participant is debriefed and given the opportunity to ask any questions or voice any concerns about the process. The participant is thanked for his/her time and participation and the interview is completed.

4.13 Analysis Procedures

4.13.1 Analysis of the Self-Administered Postal Questionnaire Data

The design of the postal questionnaire yields nominal and ordinal data. Given the : a) objective and aims of the research, b) the size and nature of the sample, and c) the type of data the postal questionnaire yields, it is determined that using the Statistical Package for the Social Sciences (SPSS) including both descriptive statistics (to describe the population) and non-parametric inferential statistics are appropriate for this research. Non-parametric inferential statistics include: Fisher's Exact Test and the Mann-Whitney U). These statistics provide the information required to help answer the research questions. They allow the researcher to explore whether there are a) significant associations or relationships between the variables being examined as well as, b) comparing data between different groups in the population. Qualitative data in the postal questionnaire (open-ended questions and anecdotal writing) is analysed using frequency counts, percentages, word/phrase analysis, as well as, content analysis (Robson, 2004**).**

4.13.2 Analysis of Semi-Structured Interview Data

Following the semi-structured interview the researcher transcribed the recordings. Data analyses includes the researcher manually coding the data using pencil and paper, and conducting word, phrase and content analysis, which are central to and emphasise the school psychologists' perspectives and practices. This involves an exploration of the major categories and themes (thematic analysis) which emerge from the data, and that best describe and highlight the school psychologists' thoughts, ideas, and decision-making, during their assessments of children referred with behavioural difficulties. As Saldana (2009, p.22) states, manual coding via pencil and paper methods "give you more control and ownership of the work". In order to enable the organised, accurate and comprehensive coding and analysis of the data generated during the semi-structured interviews, Sjostrom & Dahlgren (2002) have suggested an outline that helps to facilitate this process. It is as follows:

1. *familiarisation* with the data collected from the interviews (reading through and understanding the transcripts, and also checking for errors),
2. *compilation* of answers from all respondents (looking at the respondents answers to a particular question and identifying the most significant elements in each of their answers to the question),
3. *condensation* of individual answers (reducing longer answers to identify the central parts/ideas) ,
4. *grouping or classification* of similar answers (finding similar answers to questions and grouping them together into categories),
5. *a preliminary comparison of the categories* (the researcher attempts to establish boundaries between the categories),
6. *naming of the categories* (this is done in order to captures the main substance of the category) and
7. *contrastive comparison of each of the categories* (this aims to provide a description of the unique characteristics of each category as well as describing the resemblances between categories).

The school psychologists' responses were coded and analysed using a modified version of the above suggested framework. An example of the coding framework used for the semi-structured interviews can be found in Appendix E.

4.14 Quality and Rigour in Mixed Methods Studies

Determining what constitutes 'quality' in quantitative, qualitative, or mixed methods research, includes an often overwhelming array of definitions and criteria to assess concepts such as: validity, reliability, rigour, trustworthiness, credibility, applicability (and other terms), as well as, what constitutes conditions for theoretical and methodological robustness (Cameron, 2011; Dellinger & Leech, 2007).

In fact, reviews of the criteria to assess quality in mixed methods by various authors including Cohen et al. (2003), Angell and Townsend (2011), Bryman, Becker and Sempik (2008), Bryman (2013) and, Sammons and Bakkum (2013), indicated that there is a lack of consensus among researchers as to the best way to proceed. Some frameworks or models emphasise the importance of an independent analysis of both the quantitative and qualitative aspects, while others stress the need to apply an integrated, unified set of criteria specifically designed to assess the nature and design of mixed methods research, including frameworks or guidelines for doing so (Angell & Townsend, 2011; Bryman, 2013; Bryman, Becker & Sempik, 2008; Cameron, 2011; Cohen et al., 2003; O'Cathain, 2010; Sammons & Bakkum, 2013). As this thesis uses a mixed methods approach to address the research questions, the researcher is choosing to adopt Teddlie and Tashakkori's (2009) Integrative Framework to reflect on and assess design quality in this mixed methods study.

Teddlie and Tashakkori's (2009) Integrative Framework is a recognised model to assess quality in mixed methods research. However, O'Cathain (2010, p. 552) indicates that some find that "trying to apply all of the items within this comprehensive framework to a real-life mixed methods study was time consuming and difficult". Nonetheless, a review of a recent mixed methods study by Carroll, (2011) demonstrates that it is possible to apply the features of the Integrative Framework by Teddlie and Tashakkori (2009) to a real-life study. Carroll (2011) presented the analyses in a clear table format.

I therefore also adopted and employed Teddlie and Tashakkori's (2009) Integrative Framework to assess this study's design quality. The data is presented in a table format designed and adapted from the one found in Carroll (2011). Table 4.1 below details the ways in which this study attempts to meet the Integrative Framework for Inference Quality (Teddlie & Tashakkori, 2009). It itemises the indicators in the study that best demonstrate those criteria. Of the ten indicators, nine are presented in the table. However, this study's interpretive distinctiveness will be considered more fully within the Discussion.

Table 4.1

Integrative Model for Design Quality Applied to Present Study

Design Quality	**Indicators of Criteria in the Study**
Design Suitability (appropriateness)	Use of: -Self-administered postal questionnaire -semi-structured interviews -sequential explanatory design meet the objectives, purpose and demands of the research
Design Fidelity (adequacy) *"At best we strive to minimise invalidity and maximise validity" (Cohen et al., 2003)".*	• Improve quantitative data through careful sampling, appropriate instrumentation and appropriate statistical treatments of the data (Cohen et al., 2003) **Self-Administered Postal Questionnaire** ***Validity*** -Item on postal questionnaire drawn from and informed by, the academic and professional literature on the subject, literature on methods design, reviews of similar instruments used in related research, and pilot work -types of questions and determination of placement in questionnaire explained - sample meets demands of the research and objectives of the study - choice of sample explained ***Reliability*** -availability of self-administered postal questionnaire -researcher is a school psychologist and therefore has both experience and in-depth knowledge of the relevant and recognised professional language, concepts, theories and assessment procedures with respect to children's behavioural difficulties and the assessment of children with behavioural difficulties -postal questionnaire items based on recognised professional language concepts, theories and assessment procedures known to the participants -pilot work demonstrates consistency of comprehension and response • Improve qualitative data through honesty, depth, richness and scope of data achieved (Cohen et al., 2003) **Semi-Structured Interviews** -availability of semi-structured interview schedule (including vignettes) -sampling procedure (nested sample) -researcher is a school psychologist and therefore has both experience and in-depth knowledge of the relevant and recognised professional language, concepts, theories and assessment procedures that are known and understood by the participants -items based on recognised professional language concepts, theories and assessment procedures known and understood by the participants -types of questions and placement in interview schedule explained -closed and open questions, hypothetical vignettes, prompts and probing -allows for gathering of facts as well as more in depth expressions of perspectives, views, opinions, meanings -participant's given vignettes in advance of interview -pilot work demonstrates consistency of comprehension and responses

Within Design Consistency	-Sample for Part Two (semi-structured interviews) drawn from Part One of the study- a nested sample -Sequential Explanatory Design - Interview schedule questions for Part Two of study (semi-structured interviews including two vignettes) also based on the factors from Part One of study : focuses on elaboration, more depth explanation of known variables and exploration of gaps and unknown variables (not captured by questionnaire)
Analytic Adequacy	**Postal Questionnaire** -Appropriate statistical treatment of data -descriptive and inferential statistics using SPSS -word, content and phrase analysis of open-ended anecdotal questions -appropriate presentation of data through tables, charts and description **Semi-Structured Interviews (including vignettes)** -word for word transcription by researcher of all interviews Thematic analysis of data- emphasis words and phrases which express central themes and depict richness and depths of meaning -appropriate display of data including tables, quotations, diagrams **combination and encapsulation of quantitative and qualitative approaches to integrate the study into a cohesive whole

Interpretive Rigour

Interpretive Consistency	The inferences made from the analysis of the questionnaire data and the interview data were consistent with each of the research methods employed, and across the findings
Theoretical Consistency	Results of the data analyses demonstrate consistency with theory and what is known about the assessment of children's behaviour difficulties i.e. models of behaviour, assessment methods, identification/diagnosis and intervention. Results also consistent with general trends and developments in the training of school psychologists in Ontario.
Interpretive Agreement	Clarity and transparency with respect to data collection, statistical analyses of data, and coding guidelines/frameworks are available to other researchers in order to compare similarities in interpretations and inferences.
Integrative Efficacy	Meta inferences or the main findings and interpretations of the study include inferences made from both the postal questionnaire and the semi-structured interviews.
Interpretive Correspondence	Inferences and interpretations of the findings correspond with the research questions and the stated purpose for using a mixed methods approach.
Interpretive Distinctiveness	Plausibility of the interpretation of the findings and inferences to be considered in the Discussion

4.15 Ethical Issues

In their daily professional practice as well as in their research activities, school psychologists in Ontario are governed by the Canadian Code of Ethics for Psychologists (Canadian Psychological Association, 2000). Hence, a thorough understanding of the ethical issues that must be addressed when working with human participants is fundamental to the role of the school psychologist both as a practitioner and/or a researcher.

According to Robson (2004), it is at the very earliest stages of preparing to conduct research that serious consideration and thought must be given to the ethical aspects of the proposed enquiry. In fact, researchers, including psychologists may be able to avoid the many difficulties that can arise in the research process by considering and anticipating potential problems at the outset of their research planning (Sieber, 2001). Further, by recognising that "the core of research ethics is due respect for integrity of people participating in the research" (Aldridge & Levine, 2001, p. 22), the importance of addressing ethical issues such as informed consent, confidentiality, truthfulness, risk and benefits assessment and potential for disrespect or harm to participants, becomes increasingly obvious (Blaxter et al., 1996; Fischman, 2000; Folkman, 2000; Robson, 2004; Sieber, 2001). All of these aspects have been given due consideration in the preparation of the present research study and are fully discussed in Appendix F.

4.16 Conclusion

It was decided that using a mixed methods sequential explanatory design is the most effective way to answer the research questions in the present study. A combination of two methods (a self-administered postal questionnaire and semi-structured interviews) aim to collect data about School Psychologist Factors, Assessment Factors and Theoretical Factors, with respect to Ontario school psychologists' assessments of children with behaviour difficulties. Reliability, validity, and ethical issues were also presented. The following chapter will present the results and analyses of the results.

Chapter 5 Results and Data Analysis

5.1 Introduction

This chapter presents the findings from the postal questionnaires and the semi-structured interviews. Part 1(a) presents descriptive statistics, followed by Part 1 (b) which will present inferential statistics for the self-administered postal questionnaire. Part One (a and b) aim to answer the first research question and explores the school psychologists' practices and/or perspectives with respect to the School Psychologist, Assessment and Theoretical Factors, that are related to their assessments of children referred with behavioural difficulties. These results will be followed by the analyses of the semi-structured interview data in Part Two. Part Two seeks to answer the second research question by exploring the school psychologists' rationales/ reasoning for adopting any practice or perspective.

5.2 Part 1(a): Postal Questionnaire Analyses

School Psychologist Factors

5.2.1 Level of Training

The majority of school psychologists (22) were trained at the Doctoral level. Masters level qualifications were reported by 16 participants. Only 1 participant had qualifications listed as "other". This qualification was reported to be a "Masters Level Equivalent".

5.2.2 Years of Professional Experience

The majority of school psychologists (22 cases) reported more than 15 years of professional experience. Of the remainder, 7 school psychologists reported 6 to 10 years, 3 school psychologists reported 11-15 years, and 5 reported up to 5 years of professional experience. Two of the participants placed a check mark in all levels of experience. Hence, the status of their years of experience is unclear.

5.2.3 Registration with the College of Psychologists of Ontario (CPO)

Of the 39 school psychologists in this study, 26 reported being registered with the College of Psychologists of Ontario, while 13 reported that they were not registered.

5.2.4 Further Analyses of Participants Professional Background Data

In order to further illustrate the characteristics of the majority of research participants, data was cross-referenced according to Levels of Training, Years of Experience, and Registration Status and is found in Tables 5.1 to 5.3 below

Table 5.1

Level of Training Cross-Referenced with Years of Professional Experience

Level of Training	0-5 Years	6-10 Years	11-15 Years	More than 15 Years
Masters Level /Equivalent n=17	3	3	0	11
Doctoral Level n=20	2	4	3	11

Table 5.2

Level of Training Cross-Referenced with Registration with the CPO

Level of Training	Registered with the CPO	Not-Registered with the CPO
Masters Level /Equivalent n=17	8	9
Doctoral Level n=22	18	4

Table 5.3

Years of Professional Experience Cross Referenced with Registration with the CPO

Registration with The CPO	0-5 Years	6-10 Years	11-15 Years	More than 15 Years
Registered n=25	3	3	2	17
Not Registered n=12	2	4	1	5

Assessment Factors

5.2.5 Assessment Methods: Frequency of Use

There are a number of methods used by the school psychologists to assess a child referred due to behaviour difficulties at school. The levels for frequency of use for each of the methods of assessment were ranked from 1 to 4 (1 = never, 2 = sometimes, 3 = often and 4 = always). An opportunity in the 'other' section allowed the participants to indicate whether there was any other method(s) they have used that was not found on the list, as well as an opportunity to rank it (them). Table 5.4 below illustrates the types of methods and their frequency of use.

Table 5.4

Number of School Psychologists Rating the Frequency of Use of Assessment Methods

Types of Methods	Always	Often	Sometimes	Never
Parent Interview/Developmental History	32	4	1	2
Review of Previous Psychological Reports	29	7	2	0
Standardised Cognitive Test	27	12	0	0
Review of Ontario Student Record	26	8	2	3
Standardised Teacher Checklist/Questionnaire	25	13	1	0
Standardised Academic Achievement Test	25	13	0	0
Standardised Parent Checklist/Questionnaire	25	11	3	0
Student Interview	23	9	5	2
Review of Medical Reports	22	11	4	1
Teacher Interview	19	11	9	0
Observation in the Classroom	6	12	17	4
Standardised Student Checklist/Questionnaire	5	16	15	3
Observation in the School Yard	4	9	15	11

Results indicated that most of the assessment methods have been used ‘often to always’ by the majority of school psychologists. Parent Interview/Developmental History was highest on the list, with a Review of Previous Psychological Reports and the Ontario Student Record following very closely. Standardised Cognitive Test was ranked highest of the tests that have been used, ‘often to always’.

There was less consistency with respect to ‘Observation’ methods. For ‘Observation in the School Yard, only 4 (10%) of the school psychologists reported

that they ‘always’ used this method. Only 9 (23%) reported that they used this method ‘often’. The majority of school psychologists reported having used this method ‘sometimes’ (38%) or ‘never’ (28%).

With respect to ‘Observation in the Classroom’, only 6 (15%) of the school psychologists reported that they ‘always’ used this method. Twelve (31%) indicated that they used this method ‘often’. However, more than one half of the school psychologists (54%) reported that they used this method ‘sometimes’ (44%), or ‘never’ (10%).

A minority of school psychologists reported that they have “never” used the following methods: Review of Medical Reports (2 cases), Review of the Ontario Student Record (3 cases), Standardised Student Checklist/Questionnaire (3 cases), Student Interview (2 cases), Parent Interview/Developmental History (2 cases), and Observation in the Classroom (4 cases).

An opportunity for the school psychologists to indicate other assessment methods used yielded few results. Of the 6 school psychologists who listed other methods, 2 did not rate the frequency of use. The ‘other’ assessment methods that were listed included: a) projective techniques (2 cases, used ‘often’ by one school psychologist, the other was not rated), b) interviews with Children’s Aid workers/ Child Care workers (1 case, used ‘always’), and c) the Autism Diagnostic Observation Schedule was reported by one psychologist as being used ‘always’. Other, unrated measures listed (but not specifically named) were reported by 1 school psychologist and included: attention measures, social developmental measures, and language measures.

5.2.5 Specific Names of Standardised Tests, Checklists and Questionnaires Used

The school psychologists were asked to specifically indicate the names of standardised tests, questionnaires and checklists which they have regularly used during their assessments of children referred due to behaviour difficulties at school. Of those that responded, the standardised measures used and the number of school psychologists that indicated using them, are listed in Tables 5.5 to 5.9 below:

Table 5.5

Standardised Cognitive Tests Used

Cognitive Tests	Wechsler Intelligence Scale for Children – 4th Edition	Stanford-Binet Intelligence Scales–5th Edition	Wechsler Pre-School and Primary Scale of Intelligence – 3rd Edition	Mullen Scale of Early Learning	Leiter Scale-Revised	Wechsler Adult Intelligence Scale –3rd Edition	Woodcock Johnson Test of Cognitive Abilities 2nd Edition
Number of School Psychologists	39	11	9	5	4	3	2

Table 5.6

Standardised Academic Achievement Tests Used

Standardised Academic Achievement Tests	Wechsler Individual Achievement Test – 2nd Edition	Woodcock-Johnson Test of Achievement-3rd Edition	Wide Range Achievement Test- 4th Edition	Gray Oral Reading Test – 4th Edition	Kaufman Test of Educational Achievement – 2nd Edition
Number of School Psychologists	37	9	3	3	2

Table 5.7

Standardised Teacher Checklist/Questionnaire Used

Standardised Teacher Checklist/Questionnaire	Conners' Teacher Rating Scales-Revised	Behaviour Assessment System for Children	Behaviour Rating of Executive Function – Teacher Form	Achenbach Teacher Report Form	Adaptive Behaviour Assessment System – 2nd Edition	Child Symptom Inventory
Number of School Psychologists	33	18	16	12	3	2

Table 5.8

Standardised Parent Checklist/Questionnaire Used

Standardised Parent Checklist/Questionnaire	Conners' Parent Rating Scale-Revised	Behaviour Assessment Scale for Children	Behaviour Rating of Executive Function	Achenbach Child Behaviour Checklist	Adaptive Behaviour Assessment System-2nd Edition	Vineland Adaptive Behaviour Scales
Number of School Psychologists	32	18	16	14	3	2

Table 5.9

Standardised Student Checklist/Questionnaire Used

Standardised Student Checklist/ Questionnaire	Behaviour Assessment Scale for Children	Beck Youth Inventories	Conners-Wells' Adolescent Self-Report	Achenbach Youth Self Report	Behaviour Rating of Executive Function	Children's Depression Inventory	Multi-Dimensional Anxiety Scale for Children	Piers Harris Children's Self Concept Scale
Number of School Psychologists	15	11	10	8	8	8	7	5

5.2.6 'Other' Tests/Checklists/Questionnaires

Of the 39 school psychologists, 20 responded to this section with a range of 'other' measures they have administered when assessing children referred with behavioural difficulties. A few of the measures mentioned included, but were not exclusive to: various memory tests, projective techniques, and visual motor integration tests, including: the Wide Range Assessment of Memory and Learning, The Sentence Completion Test, The Beery-Buktenica Developmental Test of Visual-Motor Integration and The Children's Self Report and Projective Inventory, to name a few.

5.2.7 Assessment Methods: Importance

Participants were asked to rate the importance of each of the assessment methods listed below when conducting an assessment of children referred with behaviour difficulties.

The level of importance was ranked from 1 to 4 (1 = not important, 2 = somewhat important, 3 = important and 4 = very important) for each of the listed methods. An opportunity in the 'other' section allowed the participants to indicate any other method they have used that was not found on the list provided, as well as an opportunity to rank the level of importance.

Table 5.10 (below) illustrates the types of methods and the level of importance they assigned to each method.

Table 5.10

Number of School Psychologists Rating the Importance of Assessment Methods

Types of Methods	Very Important	Important	Somewhat Important	Not Important
Parent Interview/Developmental History	32	6	1	0
Review of Previous Psychological Reports	27	12	0	0
Standardised Cognitive Test	26	10	2	0
Student Interview	25	11	2	0
Review of Medical Reports	23	13	3	0
Teacher Interview	21	12	5	1
Standardised Academic Achievement Test	18	16	4	0
Review of Ontario Student Record	17	15	4	2
Standardised Teacher Checklist/ Questionnaire	16	22	1	0
Standardised Parent Checklist/Questionnaire	15	22	2	0
Standardised Student Checklist/Questionnaire	11	18	8	1
Observation in the Classroom	10	18	10	1
Observation in the School Yard	8	15	14	2

Results indicated that practically all the assessment methods were rated as being 'important to very important' by the majority of school psychologists. Again, the Parent Interview/Developmental History was the most highly ranked on the list in terms of it being a very important source of information. However, there were some differences in comparison with the 'frequency' of use of some of the methods. While 'Review of Previous Psychological Reports' was again ranked highly among the 'very important' methods, the 'Review of Medical Reports' and the 'Student Interview' were ranked more highly on the list of important methods, despite the

fact that that they are not as frequently used as the 'Review of the Ontario Student Record' or 'Teacher Checklist/Questionnaire'. The Standardised Cognitive Test was again ranked as an important method and was higher on the list than any of the other tests considered to be 'important to very important'.

There were variable results with respect to the rated importance of 'Observation in the School yard'. Eight (20 %) participants rated this method as 'very important'. Fifteen (38 %) indicated that it was 'important'. However, 14 (36%) participants rated this method as only 'somewhat important', while 2 (5%) rated it as 'not important' at all.

This variability in results was also noted for the importance assigned to 'Observation in the Classroom'. Ten (26%) participants rated this method as 'very important' and another 18 (46%) also indicated that it was an 'important' method. However, 10 (26%) of the school psychologists indicated that this method was only 'somewhat important', and 1 reported that it was 'not important' at all.

A minority of school psychologists also reported that the following assessment methods were 'not important', including: Teacher Interview (1 case), Standardised Student Checklist/Questionnaire (1 case) and, Review of the Ontario Student Record (2 cases).

An opportunity for the participants to indicate 'other' methods that they considered to be important yielded few results. Of the 5 school psychologists that listed other methods, 1 did not rate the importance. The 'other' assessment methods listed included: personality and emotional tests (1 case, rated 'very important'), standardised observation scale (1 case, rated 'very important'), other school reports (2 cases -importance only rated by one psychologist, rated 'important') as well as measures of memory and processing (1 case, rated 'important').

5.2.8 Diagnosis - Diagnostic Criteria

The school psychologists were requested to indicate if they had ever utilised either of the following diagnostic criteria during their assessments of children referred with behaviour problems:

1. The Diagnostic and Statistical Manual of Mental Disorders – Fifth Edition (DSM-V).
2. The International Classification of Diseases – 10: Classification of Mental and Behavioural Disorders (ICD-10).

The results indicated that out of the 39 school psychologists' that responded, 37 have utilised the DSM-V. Only 1 school psychologist (of the 31 that responded to this question), has referred to the ICD-10.

Further to this, the school psychologists were asked if there were any other diagnostic criteria which they had utilised during their assessments. This question yielded few responses. These included: The Ontario Ministry of Education's recognised exceptionalities criteria (1 case), the Ontario Learning Disabilities Association's criteria (1 case) and "any culture specific" criteria (1 case).

5.2.9 Types of Diagnosis Following a Psychological Assessment

The school psychologists were requested to indicate whether or not the results of their psychological assessments have led to the diagnosis of a behaviour disorder or other childhood disorder. Out of the 39 school psychologists, 38 confirmed that the results of their psychological assessments have led to a diagnosis of behaviour and/or other childhood disorder. They were then requested to indicate what types of diagnoses have resulted from their psychological assessments. Table 5.11(below), demonstrates the different types of diagnoses that the school psychologists reported, as well as how often they are listed.

Table 5.11

Types of Diagnoses Following a Psychological Assessment

Types of Diagnoses Resulting from Psychological Assessments	Frequency of Listing (n =38)	Category Total
Oppositional Defiant Disorder	19	
Conduct Disorder	13	33
Unspecified Disruptive, Impulse-Control, and Conduct Disorder	1	
Attention- Deficit/Hyperactivity Disorder	33	33
Autism Spectrum Disorder	21	21
Anxiety Disorders	19	21
Selective Mutism	2	
Specific Learning Disorders/Learning Disabilities	16	16
Depression/Dysthymia	16	16
Obsessive Compulsive Disorder	6	7
Trichotillomania	1	
Global Developmental Delay	3	
Intellectual Developmental Disorder	1	6
Developmental Disability	2	
Tourette's Disorder	3	3
Bipolar Disorder	2	2
Developmental Coordination Disorder	1	1
Anorexia Nervosa	1	1
Brain Injury	1	1
Fetal Alcohol Syndrome	1	1

Having indicated the types of diagnoses that have resulted from their assessments, the school psychologists were asked to indicate which professional practitioner(s) made the diagnoses, following their assessments. Each of the 26 registered school psychologists indicated that they themselves made the diagnoses. Twelve out of the thirteen unregistered school psychologists indicated that the diagnoses were made by a Supervising Psychologist/Psychological Associate. Seventeen of the school psychologists (including both registered and not-registered school psychologists) indicated that the diagnoses were also made by other children's mental health professionals. The other types of children's mental health professionals they named included: pediatrician (7 cases), child psychiatrist (4 cases), psychiatrist (2 cases), family physician/medical doctor (2 cases) and developmental pediatrician (1 case).

5.2.11 Intervention Options

The school psychologists were asked to rate how often any of the listed intervention options were offered following an assessment, ranked from 1 to 4 (1= never, 2= sometimes, 3 =often, 4= always).

Table 5.12

Number of School Psychologists Rating The Types and Frequency of Intervention Options Offered Following Psychological Assessment

Options	Never	Sometimes	Often	Always
Recommendations for school staff	0	0	3	36
Recommendations for parents	0	0	9	30
Referral to an external professional	0	12	23	4
Direct Intervention by You	19	14	4	1

Table 5.12 above indicates that the majority of school psychologists (92%) reported that they 'always' provided 'recommendations for school staff', and that this intervention was ranked highest on the list. This was followed closely by

‘recommendations for parents’ which again have ‘always’ been offered by the majority of school psychologists (77%).

Referrals to an external professional were reported to be offered somewhat less often by the majority of school psychologists. Only four (10%) of the school psychologists reported ‘always’ referring to an external professional. However, more than half of the school psychologists (59%) indicated that they made these types of referrals ‘often’, while 31% of the school psychologists reported referring to an external professional ‘sometimes’.

Greater variability was noted in the Direct Intervention option. Of the 38 school psychologists’ that responded, only 1 school psychologist reported that Direct Intervention was ‘always’ offered. Four school psychologists (10%) indicated that Direct Intervention was offered ‘often’, while 36% indicated they offered it ‘sometimes’. Notably, almost half (49%), indicated that they ‘never’ offered Direct Intervention.

The school psychologists were given an opportunity to indicate if there were any other options that were offered that had not been mentioned on the list. More than half of the school psychologists (62%) did not indicate that they offered any other options. Fifteen (38%) indicated that they ‘often’ made referrals to other internal and external school support staff, such as: Social Workers, Child Youth Counsellors, Other Counsellors, Children’s Aid Workers, Occupation Therapists, Speech Language Therapists, Physiotherapists, Behaviour Therapists, Community Psychological Services and ‘other school’ or ‘other community’ support staff that were not identified.

Theoretical Factors

5.2.12 Theories of Behaviour: Degree of Influence

The school psychologists were requested to indicate to what degree different theories of behaviour influence their understandings of children's behaviour and behaviour difficulties by ranking their responses from 1 to 4 (1= not at all, 2 = low, 3= moderate, 4= high). Their responses are indicated below in Table 5.13.

Table 5.13

Number of School Psychologists Rating the Degree of Influence of Each Theory of Behaviour

Theories/Perspectives of Behaviour	High Degree of Influence	Moderate Degree of Influence	Low Degree of Influence	Not at All - No Influence
Cognitive-Behavioural	22	15	0	1
Behavioural	14	21	1	0
Biological	14	17	4	1
Social-Learning	13	18	2	1
Ecological	4	12	14	5
Psychodynamic	4	7	19	6
Humanistic	0	12	18	4

The results indicated that a majority of school psychologists reported being influenced by the cognitive-behavioural, behavioural, biological and social-learning perspectives from a 'moderate' to 'high' degree. However, a Cognitive-Behavioural perspective was ranked highest by a majority of the psychologists. This was followed by Behavioural, Biological and Social Learning theories, which were ranked closely and almost evenly to one another.

The results further indicated that a majority of the school psychologists were influenced by the ecological, psychodynamic and humanistic perspectives from a 'moderate' to 'low' degree.

The participants were also provided with an opportunity to indicate any 'Other' theories of behaviour that influenced their views of children's behaviour and behaviour difficulties. This question yielded a very low response. Only 3 school psychologists responded to this question and named the following models, approaches or perspectives: family therapy model (1 case, rated 4 or high), strategic approach (1 case, no rating) and a developmental psychopathology approach which the school psychologist indicated included all the above models (1 case, not rated).

5.2.13 The Assessment of Behaviour Difficulties: Important Factors to Consider

The school psychologists were asked to indicate what they think are the most important factors to consider when assessing children referred due to behaviour difficulties. Thirty school psychologists responded to this question resulting in a large inventory of factors. A content analysis focusing on phrases and response counts, revealed patterns which resulted in 7 main categories. They are presented in Table 5.14 below in terms of the frequency with which they were reported by the participants, including examples of the phrases used to describe them.

Table 5.14

The 7 Important Factors to Consider in the Assessment of Behaviour Difficulties

Important Factors to Consider	Child's Level of Functioning n=21	Comprehensive Assessment/ Ways of Understanding Behaviour n=18	Home & Family Environment n=16	History n=13	Biological & Medical Factors n=12	Social & Emotional Factors n=11	School Environment n=8
Phrases	-cognitive functioning - thinking and reasoning abilities -executive functioning - emotional regulation - problems with learning -academic functioning - problem solving skills - coping mechanisms and abilities -understanding expectations	-comprehensive assessment - unbiased assessment - information from multiple sources/settings over time - behaviour in a broad view and in multiple contexts - culture specific behaviours and norms - conduct a functional analysis of behaviour - ABC	- family dynamics - child/parent dynamic - parents as role models -structure in the home -discipline methods -family health (nutritional issues, sleep patterns, activity patterns) -behaviour management (structure, routines, consequences) -stress in family -socio-economic status of family	-developmental - trauma (abuse, separation of parents, grief) -physical problems or mental health issues -social history -history of behaviour problems or new behaviour problems - relevant family history (medical, mental health issues) -academic	-medical issues ruled out - biological underpinnings - pediatric diagnoses - genetic disorders/anomalies - brain injury/ seizures/ fetal alcohol syndrome - sensory issues - vision, hearing and sensory regulation difficulties - conditions - medications	- self-esteem issues - self concept - emotional regulation skills - social concerns/ circumstances (including bullying, child's peer group) - anxiety -depression - emotional adjustment	- classroom setting -teacher-student rapport - behaviour management issues - support for the child at school

5.3 Part 1(b): Postal Questionnaire Analyses

The results from the analyses in Part 1(a) of the postal questionnaire yielded data that are appropriate for further inferential statistical analysis. The following section presents the statistical analyses of the data gathered in Part 1(a) via the application of non-parametric tests (described in Chapter 4). Again, these analyses are being conducted with a view to gathering information that will help answer the first research question. That is, they are being conducted in order to determine what factors are related to and/or influence Ontario school psychologists' assessments of children referred with behaviour difficulties. This is accomplished by investigating the relationship between the categories within the School Psychologist, Assessment and Theoretical Factors. The categories within each of the School Psychologist, Assessment and Theoretical factors being used for inferential statistical analyses are found in Table 5.15 below:

Table: 5.15

Categories Within School Psychologist Factors, Assessment Factors and Theoretical Factors for Inferential Statistical Analyses

Professional Background	Methods of Assessment	Diagnosis	Intervention	Theories Of Behaviour
(School Psychologist Factors)	**(Assessment Factors)** ⟷	**(Assessment Factors)** ⟷	**(Assessment Factors)**	**(Theoretical Factors)**
- Level of Training (Masters Level/Equivalent or Doctoral Level) -Years of Professional Experience -Registration with the College of Psychologists Of Ontario (CPO)	- Methods Used (Frequency) -Methods Used (Importance)	- Diagnostic Criteria (DSM-V or ICD-10) - Diagnoses Made Following Assessment -Professionals Making the Diagnosis	- Interventions offered (Frequency)	-Theories of Behaviour (Degree of Influence)

It is important to note that when any statistical analyses are conducted between the categories, the results are only reported in the initial category under which they were analysed, to avoid redundancy.

5.3.1 Relationship Between the School Psychologists' Professional Characteristics

The statistical analyses begins by considering the relationship between the categories *within* the School Psychologists Factors. It statistically compares the school psychologists' professional characteristics, by investigating whether there is a relationship between their Level of Training, Years of Professional Experience and Registration Status. Results are found in Tables 5.16 and 5.17 below.

Table 5.16

Comparison of School Psychologists' Level of Training with Registration Status and Years of Professional Experience

	(Doctoral or Masters Level/Equivalent)	
Variable	Fisher's Exact Test	p
Registration Status	n=39	.039
Years of Professional Experience	n=37	.738

.

In Table 5. 16 Fisher's Exact tests indicated that there was a significant difference in the proportion of Doctoral Level school psychologists that were Registered, from the proportion of Masters Level/Equivalent school psychologists that were Registered, n=39, p=.04. Doctoral Level school psychologists were more likely to be Registered with the College of Psychologists of Ontario, than those with a Masters Level/Equivalent. There were no other significant relationships between the remaining professional characteristics shown in Tables 5.16 and 5.17.

Table 5.17

Comparison of Total Population of School Psychologists' Registration Status with Years of Professional Experience

	Registration Status (Registered/ Not Registered)	
Variable	Fisher's Exact Test	p
Years of Professional Experience	n=37	.164

Comparisons between each of the categories within the School Psychologist, Assessment and Theoretical Factors are reported below.

5.3.2 Level of Training Compared with Methods of Assessment (Frequency)

Table 5.18

Level of Training Compared with Methods (Frequency)

	Doctoral or Masters Level/Equivalent	
Variable	Mann-Whitney U	p
Review of Medical Reports	81	.001
Review of Previous Psychological Reports	122	.031
Teacher Interview	117	.032
Standardised Cognitive Test	182	.873
Standardised Academic Achievement Test	175	.901
Observation in the Classroom	169	.598
Observation in the School Yard	159	.405
Parent Interview/Developmental History	186	.966
Student Interview	181	.848
Standardised Teacher Checklist/Questionnaire	182	.866
Standardised Parent Checklist/Questionnaire	173	.639
Standardised Student Checklist/Questionnaire	161	.430
Review of the Ontario Student Record	169	.541

In Table 5.18 above, the Mann-Whitney U test indicated that there was a significant difference in the median frequency of use of the Review of Medical Reports between Doctoral Level school psychologists (*Md* = 3, n = 22) and Masters Level/Equivalent school psychologists (*Md* = 4, n =16), *U* = 81, p <.05 . Masters Level/Equivalent school psychologists' median frequency of use of the 'Review of Medical Reports' was significantly higher than the Doctoral school psychologists.

There was also a significant difference in the median frequency of use of the Review of Psychological Reports between Doctoral Level school psychologists (*Md* = 4, n = 22) and Masters Level/Equivalent school psychologists (*Md* = 4, n =16), *U* = 122, p <.05. Masters Level/Equivalent school psychologists' median frequency of use of the 'Review of Psychological Reports' was significantly higher than the Doctoral Level school psychologists.

Finally, there was a significant difference in the median frequency of the use of Teacher Interviews between Doctoral Level school psychologists (*Md* = 3, n = 22) and Masters Level/Equivalent school psychologists (*Md* = 4, n =17), *U* = 117, p <.05. Masters Level/Equivalent school psychologists' median frequency of use of 'Teacher Interview' was significantly higher than Doctoral Level school psychologists. There was no significant differences between Doctoral and Masters Level/Equivalent school psychologists in terms of their median frequency of use of any of the remaining methods.

Results of Fisher's Exact tests indicate that there was no significant difference in the proportion of Doctoral Level versus Masters Level/Equivalent school psychologists in terms of their 'frequency of use' with respect to any of the 'Methods of Assessment'. These values can be found in Table 1 in Appendix G.

5.3.3 Level of Training Compared with Methods of Assessment (Importance)

Table 5.19

Level of Training Compared with Methods (Importance)

	Doctoral or Masters Level	
Variable	Fisher's Exact Test	p
Standardised Academic Achievement Test	n=38	.025
Observation in the School Yard	n=39	1.00
Review of Previous Psychological Reports	n=39	.730
Standardised Cognitive Test	n=38	.171
Observation in the Classroom	n=39	1.00
Parent Interview/Developmental History	n=39	1.00
Teacher Interview	n=39	.679
Student Interview	n=38	.492
Teacher Checklist/Questionnaire	n=39	.436
Parent Checklist/Questionnaire	n=39	.184
Student Checklist/Questionnaire	n=38	1.00
Review of the Ontario Student Record	n=38	.672
Review of Medical Reports	n=38	1.00

In Table 5.19 above, results of a Fisher's Exact Test indicated that there was a significant difference in the proportion of Masters Level/Equivalent versus Doctoral Level school psychologists in terms of how 'Important' they rated the use

of a Standardised Academic Achievement Test, during an assessment, n=38, p=.03. Masters Level/Equivalent school psychologists were more likely to rate the use of the Standardised Achievement Test as 'important to very important', during their assessments. Results also indicated that there was no significant difference in the proportion of Doctoral versus Masters Level/Equivalent school psychologists with respect to their ratings of 'Importance' for any of the other 'Methods of Assessment'.

Further to the above analyses, results of Mann-Whitney U Tests indicated that there was no significant difference between Doctoral and Masters Level/Equivalent school psychologists in terms of the median importance they assigned to any of the methods of assessment. These values can be found in Table 2, in Appendix G.

5.3.4 Level of Training Compared with Diagnosis

Table 5.20

Level of Training Compared with Diagnostic Practices

	Doctoral or Masters Level/Equivalent	
Variable	Mann-Whitney U	p
Diagnosis Made By Self (if Registered)	122	.024
Use DSM-V	165	.103
Use ICD-10	108	.427
Diagnosis of Behaviour-related or other Disorder	176	.255
Diagnosis Made by Supervising Psychologist (if not Registered)	133	.056
Diagnosis Made By Other Professional	136	.096

In Table 5.20 above, a Mann-Whitney U Test revealed that there was a significant difference in the median number of Registered Doctoral Level school psychologists (*Md* = 1, n =22), and Registered Masters Level/Equivalent school psychologists (*Md* = 1, n =17), *U* = 122, p <.05 with respect to making a diagnosis themselves following an assessment. The median number of registered school psychologists that did make a diagnosis themselves, was significantly higher at the Doctoral Level

than at the Masters Level/Equivalent. Results also indicated there was no significant difference in any of the remaining diagnostic practices with respect to the school psychologists' level of training.

Table 5.21

Level of Training Compared with Diagnostic Practices

	Doctoral Level or Masters Level/Equivalent	
Variable	Fisher's Exact Test	p
Diagnosis Made by Self (if Registered)	n=39	.039
Use DSM-V	n=39	.184
Use ICD-10	n=31	1.00
Diagnosis of Behaviour-related or other Disorder	n=39	.436
Diagnosis by Supervising Psychologist (if not Registered)	n=39	.052
Diagnosis Made by Other Professional	n=39	.115

In Table 5.21 above, results of a Fisher's Exact Test indicated that the proportion of Registered Doctoral Level school psychologists that make a diagnosis, was significantly different from the proportion of Registered Masters Level/Equivalent school psychologists, n=39, p=.04. Registered Doctoral Level school psychologists were more likely than Registered Masters Level/Equivalent school psychologists to make a Diagnosis themselves following an assessment. Results also indicated that there was no significant difference in the proportion of Doctoral versus Masters Level /Equivalent school psychologists, with respect to any of their remaining diagnostic practices.

.

5.3.5 Level of Training Compared with Interventions

Table 5.22

Level of Training Compared with Interventions

Variable	Doctoral Level or Masters Level/Equivalent Mann-Whitney U	p
Direct Intervention By You	108	.024
Recommendations for School Staff	181	.713
Recommendations for Parents	185	.954
Referral to an External Professional	177	.746

In Table 5.22 above, a Mann-Whitney U Test revealed that there was a significant difference in the median frequency of use of 'Direct Intervention' between Doctoral Level school psychologists (*Md* = 2, n = 21) and Masters Level/Equivalent school psychologists (*Md* =1, n =17), *U* = 108, p <.05. Doctoral Level school psychologists' median frequency of offering of 'Direct intervention' was significantly higher than the Masters Level/Equivalent school psychologists. Results further indicated that there was no significant difference between Doctoral and Masters Level/Equivalent school psychologists in terms of the median frequency of offering any of the remaining Interventions.

Results from Fisher's Exact tests also indicated that there was no significant difference in the proportion of Doctoral Level versus Masters Level/Equivalent school psychologists, with respect to how 'frequently' they offered any of the remaining interventions. These values can be found in Table 3, in Appendix G.

5.3.6 Level of Training Compared with Theories (Perspectives) of Behaviour

Results of Fisher's Exact tests indicated that there was no significant difference in the proportion of Doctoral Level school psychologists versus Masters Level/Equivalent school psychologists, with respect to the 'degree of influence' that any of the theories/perspectives of behaviour had on their assessment of children's behaviour difficulties. These values can be found in Table 4, in Appendix G.

Further to the above analyses, results of Mann-Whitney U Tests indicated that there was no significant difference between Doctoral Level and Masters Level/Equivalent school psychologists in terms of the median degree of influence they assigned to any of the Theories/Perspectives of Behaviour. These values can be found in Table 5, in Appendix G.

5.3.7 Registration Status Compared with Methods of Assessment (Frequency)

Table 5.23

Registration Status Compared with Methods (Frequency)

	Registered or Not Registered	
Variable	Mann-Whitney U	p
Observation in the School Yard	103	.041
Standardised Cognitive Test	149	.468
Standardised Academic Achievement Test	135	.303
Observation in the Classroom	120	.124
Parent Interview/Developmental History	154	.504
Teacher Interview	124	.146
Student Interview	136	.266
Teacher Checklist/Questionnaire	154	.593
Parent Checklist/Questionnaire	163	.832
Student Checklist/Questionnaire	160	.786
Review of the Ontario Student Record	152	.555
Review of Medical Reports	132	.288
Review of Previous Psychological Reports	140	.350

In Table 5.23 above, a Mann-Whitney U Test revealed that there was a significant difference in the median frequency of use of 'Observation in the 'School Yard' between Registered school psychologists (*Md* = 2, n = 26), and Not-Registered

school psychologists (*Md* =3, n =13), *U* = 103, p <.05. Not-Registered school psychologists' median frequency of use of 'Observation in the School Yard' was significantly higher than Registered school psychologists. There was no significant difference between Registered and Not-Registered school psychologists in terms of the median frequency of use of any of the remaining Methods of Assessment.

Results of Fisher's Exact Tests indicated that there was no significant difference in the proportion of Registered versus Not-Registered school psychologists, with respect to their 'frequency of use' of any of the 'Methods of Assessment'. These values can be found in Table 6, in Appendix G.

5.3.8 Registration Status Compared with Methods of Assessment (Importance)

Results of Fisher's Exact Tests indicated that there was no significant difference in the proportion of Registered versus Not-Registered school psychologists, with respect to the 'importance' they assigned to any of the 'Methods of Assessment'. These values can be found in Table 7, in Appendix G.

Further to the above analyses, results of Mann-Whitney U Tests indicated that there was no significant difference between Registered and Not-Registered school psychologists in terms of the median importance they assign to any of the Methods of Assessment. These values can be found in Table 8, in Appendix G.

5.3.9 Registration Status Compared with Diagnosis

Table 5.24

Registration Status Compared with Diagnostic Practices

	Registered or Not Registered	
Variable	Fisher's Exact Test	p
Diagnosis Made by Self- if Registered	n=39	.000
Diagnosis Made by Supervising Psychologist - if not Registered	n=39	.000
Use DSM-V	n=39	.105
Use ICD – 10	n=31	1.00
Diagnosis of Behaviour-related or other Disorder	n=39	.333
Diagnosis Made By Other Professional	n=39	.497

In Table 5.24 above, results of a Fisher's Exact Test indicated that there was a significant difference in the proportion of Registered versus Not-Registered school psychologists, that made a diagnosis themselves following a psychological assessment, n=39, p=.00. Results confirmed that the Registered school psychologists were more likely to make a diagnosis themselves following a psychological assessment.

Results also indicated that there was a significant difference in the proportion of Registered versus Non-Registered school psychologists with respect to whether a supervising psychologist made the diagnosis following their assessments, n=39, p=.00. Results confirmed that school psychologists that were Not-Registered were more likely to have a supervising psychologist make the diagnosis following their psychological assessments.

There were no significant differences in the proportion of Registered versus Not-Registered school psychologists, with respect to any of the remaining diagnostic practices.

Table 5.25

Registration Status Compared with Diagnostic Practices

	Registered or Not Registered	
Variable	Mann-Whitney U	p
Diagnosis Made by Self-if Registered	.000	.000
Diagnosis Made by Supervising Psychologist-if not Registered	13	.000
Use DSM-V	143	.043
Use ICD-10	100	.490
Diagnosis of Behaviour-related or other Disorder	156	.157
Diagnosis Made By Other Professional	143	.367

In Table 5.25 above, a Mann-Whitney U Test revealed that there was a significant difference in the median number of Registered school psychologists (*Md* = 1, n =26), and Not Registered school psychologists (*Md* =.00, n =13), *U* =.000, p <.01, in terms of whether they have made a diagnosis themselves. The median number of Registered school psychologists' that 'did' make a diagnosis themselves was significantly higher than Not Registered school psychologists. It is worth reiterating, and important to note, that communicating a diagnosis is a controlled act that can only be performed by Registered school psychologists.

There was also a significant difference in the median number of school psychologists that had a Supervising Psychologist make a diagnosis from their assessments, between Not Registered school psychologists (*Md* = 1, n =13), and Registered school psychologists (*Md* =.00, n =26), U = p <.01. The median number of Not Registered school psychologists that 'did' have a Supervising Psychologist make a Diagnosis from their assessments was significantly higher than Registered school psychologists. Again, it is important to note that Not Registered school psychologists must be under the supervision of a Registered school psychologist, as communicating a diagnosis is a controlled act. Registered school psychologists are all able to perform this controlled act.

Finally, there was a significant difference in the median number of school psychologists that used/referred to the DSM-V, between Registered school psychologists (*Md* =1, n =26), and Not Registered school psychologists (*Md* =1, n =13), *U* =143, p <.05. The median number of Not Registered school psychologists that 'did' use/refer to the DSM-V, was significantly higher than Registered school psychologists.

There was no significant difference between Registered and Not Registered school psychologists in terms of any of the remaining diagnostic practices.

5.3.10 Registration Status Compared with Interventions

Table 5.26

Registration Status Compared with Interventions

	Registered or Not Registered	
Variable	Mann-Whitney U	p
Direct Intervention By You	81	.006
Recommendations for school staff	149	.208
Recommendations for parents	149	.426
Referral to an External Professional	125	.134

In Table 5.26 above, a Mann-Whitney U Test revealed that there was a significant difference in the median frequency of use of 'Direct Intervention' between Registered school psychologists (*Md* = 2, n = 25) and Not-Registered school psychologists (*Md* =1, n =13), *U* = 81, p <.01. Registered school psychologists' median frequency of offering 'Direct Intervention' was significantly higher than Not-Registered school psychologists. Results further indicated that there was no significant difference between Registered and Not-Registered school psychologists in terms of the median frequency of offering any of the remaining interventions.

Results of Fisher's Exact tests indicated that there was no significant difference in the proportion of Registered versus Not-Registered school psychologists, with

respect to how 'frequently' they offered any interventions. These values can be found in Table 9, in Appendix G.

5.3.11 Registration Status Compared with Theories (Perspectives) of Behaviour

Results of Fisher's Exact tests indicated that there was no significant difference in the proportion of Registered versus Not-Registered school psychologists, with respect to the 'degree of influence' that any of the Theories of Behaviour had on their assessments of children referred with behaviour difficulties. These values can be found in Table 10, in Appendix G.

Further to the above analyses, results of Mann-Whitney U Tests indicated that there was no significant difference between Registered and Not-Registered school psychologists in terms of the median degree of influence they assigned to any of the Theories of Behaviour. These values can be found in Table 11, in Appendix G.

5.3.12 Years of Professional Experience Compared with Methods of Assessment (Frequency)

Table 5.27

Years of Professional Experience Compared with Methods (Frequency)

	Years of Experience.	
Variable	Mann-Whitney U	p
Teacher Interview	106	.048
Standardised Cognitive Test	138	.292
Standardised Academic Achievement Test	124	.233
Observation in the Classroom	123	.173
Observation in the School Yard	117	.119
Parent Interview/Developmental History	164	.964
Student Interview	131	.233
Standardised Teacher Checklist/Questionnaire	148	.528
Standardised Parent Checklist/Questionnaire	148	.544
Standardised Student Checklist/Questionnaire	129	.241
Review of the Ontario Student Record	143	.421
Review of Medical Reports	146	.680
Review of Previous Psychological Reports	157	.983

In Table 5.27 above, a Mann-Whitney U Test revealed that there was a significant difference in the median frequency of use Teacher Interviews between school psychologists with 15+ years of experience (*Md* =4 , n =22) and school psychologists with 0-15 years of experience (*Md* =3, n =15), *U* =106 , p <.05. School psychologists with 15+ years of experience median frequency of use of 'Teacher Interviews' was significantly higher than school psychologists with 0-15 years of experience. Further to the above analyses, that there was no significant difference between the school psychologists' 'Years of Professional Experience' in terms of their median 'frequency of use' of any of the other 'Methods of Assessment'.

5.3.13 Years of Professional Experience Compared With Methods of Assessment (Importance), Diagnosis, Interventions and Theories of Behaviour.

Results of Mann-Whitney U Tests indicated that there was no significant difference between the school psychologists' 'Years of Professional Experience' in terms of the median 'importance' they assigned to any of the 'Methods of Assessment', their median use of any Diagnostic practices, their median frequency of offering any of the Interventions, or the median 'degree of influence' they assigned to any of the Theories of Behaviour. These values can be found in Table 12, in Appendix G.

Results of Fisher's Exact tests indicated that there was no significant difference in the proportion of school psychologists, based on their 'Years of Professional Experience', with respect to: the importance they assigned to any of the 'Methods of Assessment', their Diagnostic Practices, how frequently they offered Interventions, or the 'degree of influence' they assigned any of the 'Theories of Behaviour'. These values can be found in Table13, in Appendix G.

5.3.14 Methods of Assessment (Frequency) Compared with Diagnosis

Table 5.28

Methods of Assessment (Frequency) Compared with Diagnostic Practices

			Diagnostic Practices			
Variable	DSM-V	p	Diag. By Superv. Psych. if not Registered	p	Diag. by Other M.H. Professional.	p
Parent Interview /Developmental History	n=39	.004	-	-	-	-
Observation in the Classroom	-	-	n=39	.035	-	-
Observation in the School Yard	-	-	-	-	n=39	.039
Standardised Academic Achievement Test	-	-	-	-	n=38	.042

In Table 5.28 above, results of a Fisher's Exact Test indicated that there was a significant difference in the proportion of school psychologists with respect to their use of the DSM-V, and how frequently they used Parent Interviews/Developmental History, n=39, p=00. School psychologists that used/referred to the DSM-V in their assessments, were more likely to have used Parent Interviews/Developmental History, 'often to always'.

There was also a significant difference in the proportion of school psychologists with respect to whether a diagnosis was made from their assessments by the Supervising Psychologist (if not Registered), and their frequency of use of 'Observation in the Classroom', n=39, p=.04. School psychologists that had diagnoses made from their assessments by the Supervising Psychologist (if not Registered), were more likely to have used "Observation in the Classroom', 'often to always'.

There was also a significant difference in the proportion of school psychologists with respect to whether a diagnosis was made from their assessments by another

Mental Health Professional, and their frequency of use of 'Observation in the School Yard, n=39, p=.04. School psychologists that had diagnoses made from their assessments by another Mental Health Professional were more likely to have used "Observation in the School Yard, 'often to always'.

Further, there was a significant difference in the proportion of school psychologists with respect to whether a diagnosis was made from their assessments by another Mental Health Professional, and their frequency of use of 'Standardised Academic Achievement Tests n=38, p =.04. School psychologists that had diagnoses made from their assessments by another Mental Health Professional, were more likely to have used Standardised Academic Achievement Tests 'always'.

There was no significant difference in the proportion of school psychologists, in terms of how 'frequently' they used any of the remaining 'Methods of Assessment', in relation to their Diagnostic Practices. These values can be found in Table 14, in Appendix G.

5.3.15 Methods of Assessment (Frequency) Compared with Interventions

Table 5.29

Methods of Assessment (Frequency) Compared with Interventions

	Interventions			
Variable	Recommendations for School Staff	p	Referral to an External Professional	p
Review of the Ontario Student Record	n=39	.038	n=39	.025

In Table 5.29 above, results of a Fisher's Exact Test indicated that there was a significant difference in the proportion of school psychologists with respect to their frequency of 'Review of the Ontario Student Record, and how often they made a 'Referral an External Professional', n=39, p=.03. School psychologists that always

provided Recommendations to School Staff, were more likely to have reviewed the Ontario Student Record 'often to always'.

There was also a significant difference in the proportion of school psychologists with respect to their frequency of 'Review of the Ontario Student Record' and how often they offered Recommendations to School Staff following an assessment, n=39, p=.04. School psychologists that always provided Recommendations to School Staff, were more likely to have reviewed the Ontario Student Record 'often to always'.

There was no significant difference in the proportion of school psychologists, in terms of how 'frequently' they used any of the remaining 'Methods of Assessment', in relation to how frequently they offered any of the other Interventions. These values can be found in Table 15, in Appendix G.

5.3.16 Methods of Assessment (Frequency) Compared with Theories of Behaviour

Table 5.30

Methods of Assessment (Frequency) Compared with Theories of Behaviour

	Theories of Behaviour			
Variable	Behavioural Perspective	Social-Learning Perspective	Ecological Perspective	p
Review of Previous Psychological Reports	n=35	-	-	.029
Observation in the Classroom	-	-	n=35	.041
Review of Ontario Student Record	-	n=35	-	.050

In Table 5.30 above, results of a Fisher's Exact test indicated that there was a significant difference in the proportion of school psychologists, in terms of how frequently they used 'Previous Psychological Reports' as an assessment method, in

relation to ‘the degree of influence’ they assigned to a ‘Behavioural Perspective’, n=35, p=.03. School psychologists were more likely to have reviewed ‘Previous Psychological Reports ‘often to always’, when they rated a ‘Behavioural Perspective’ as having a ‘moderate to high’ degree of influence in their practice.

Results also indicated that there was a significant difference in the proportion of school psychologists, in terms of how frequently they used ‘Observation in the Classroom’ in relation to ‘the degree of influence’ they assigned to an ‘Ecological Perspective’, n=35, p=.04. School psychologists were more likely to have used ‘Observation in the Classroom’ ‘sometimes to never’, when they rated an Ecological Perspective as having ‘no influence to low influence’ in their practice.

Further, there was a significant difference in the proportion of school psychologists’ in terms of how frequently they used the ‘Ontario Student Record (OSR)’ as an assessment method, in relation to ‘the degree of influence’ they assigned to a Social Learning Perspective, n=34, p=.05. School psychologists were more likely to have used the OSR ‘often to always’, when they rated a Social Learning Perspective as having a ‘moderate to high’ degree of influence in their practice.

There was no significant difference in the proportion of school psychologists’ in terms of how ‘frequently’ they used any of the remaining ‘Methods of Assessment’, based on the ‘degree of influence’ they assigned to any of the other Theories (Perspectives) of Behaviour. These values can be found in Table 16, in Appendix G.

5.3.17 Methods of Assessment (Importance) Compared with Diagnosis

Results of Fisher’s Exact tests indicated that there was no significant difference in the proportion of school psychologists in terms of the ‘importance’ they assigned to any of the Methods of Assessment, in relation to their Diagnostic Practices. These values can be found in Table 17, in Appendix G.

5.3.18 Methods of Assessment (Importance) Compared with Interventions

Table 5.31

Methods of Assessment (Importance) Compared with Interventions

	Interventions					
Variable	Rec. for School Staff	p	Rec. for Parents	p	Ref. to Ext. Prof.	p
Review of the Ontario Student Record	n=38	.002	-	-	n=38	.047
Standardised Parent Checklist/ Questionnaire	-	-	n=39	.049	-	-

In Table 5.31 above, results of a Fisher's Exact Test indicated that there was a significant difference in the proportion of school psychologists with respect to the importance they assigned to a 'Review of the Ontario Student Record', and how often they offered 'Recommendations for School Staff', n=38 ,p=.00. School psychologists that always provided 'Recommendations to School Staff' were more likely to have rated a 'Review the Ontario Student Record' as 'important to very important'.

There was also a significant difference in the proportion of school psychologists, with respect to the importance they assigned to a 'Review of the Ontario Student Record', and how often they made a 'Referral an External Professional'. n=38, p=.05. School psychologists that made a 'Referral to an External Professional 'often to always', were more likely to have rated a 'Review of the Ontario Student Record', as 'important to very important'.

Further, there was a significant difference in the proportion of school psychologists with respect to the importance they assigned to the use of a Standardised Parent Checklist/Questionnaire, and how often they offered Recommendations for Parents n=39, p=.05. School psychologists that always provided Recommendations to Parents, were more likely to have rated the use of a Parent Checklist/Questionnaire' as 'important to very important'.

There was no significant difference in the proportion of school psychologists, in terms of the level of importance they assigned to any of the remaining 'Methods of Assessment', and how frequently they offered any of the remaining Interventions. These values can be found in Table 18, in Appendix G.

5.3.19 Methods of Assessment (Importance) Compared with Theories of Behaviour

Table 5.32

Methods of Assessment (Importance) Compared with Theories of Behaviour

	Theories of Behaviour	
Variable	Biological Perspective	p
Review of Medical Reports	n=36	.045

In Table 5.32 above, results of a Fisher's Exact Test indicated that there was a significant difference in the proportion of school psychologists in terms of how 'Important' they rated a 'Review of Medical Reports', based on the 'degree of influence' they assigned to a Biological Perspective, n=36, p=.05. School psychologists were more likely to have rated the review of Medical Reports as being 'important to very important' when they rated a Biological Perspective as having a 'moderate to high' degree of influence in their practice.

There was no significant difference in the proportion of school psychologists, in terms of the 'importance' they assigned to any of the remaining 'Methods of Assessment', based on the 'degree of influence' they assigned to any of the remaining 'Theories of Behaviour'. These values can be found in Table 19, in Appendix G.

5.3.20 Diagnosis Compared with Interventions

Results of Fisher's Exact tests indicated that there was no significant difference in the proportion of school psychologists in terms of their Diagnostic practices, and how often they offered any of the Interventions. These values can be found in Table 20, in Appendix G.

5.3.21 Diagnosis Compared with Theories of Behaviour

Results of Fisher's Exact tests indicated that there was no significant difference in the proportion of school psychologists in terms of their Diagnostic practices, based on the degree of influence they assigned to any of the Theories of Behaviour. These values can be found in Table 21, in Appendix G.

5.3.22 Interventions Compared with Theories of Behaviour

Table 5.33

Interventions (Frequency) Compared with Theories of Behaviour

	Theories of Behaviour		
Variable	Social-Learning	Humanistic	p
Referral to an External Professional	n=34	-	.037
Direct Intervention By You	-	n=34	.042

In Table 5.33 above, results of a Fisher's Exact Test indicated that there was a significant difference in the proportion of school psychologists in terms of how frequently they offered a 'Referral to an External Professional', in relation to the 'degree of influence' they assigned to a 'Social Learning Perspective', n=34, p=.04. School psychologists were more likely to have offered a Referral to an External

Professional ‘often to always’, when they rated a Social Learning Perspective as having a ‘moderate to high’ degree of influence.

There was also a significant difference in the proportion of school psychologists in terms of how frequently they offered Direct Intervention following an assessment, in relation to the ‘degree of influence’ they assigned to a Humanistic Perspective, n=34, p=.04. School psychologists were more likely to have offered Direct Intervention ‘sometimes to never’ when they rated a ‘Humanistic Perspective’ as having a ‘not at all to low’ degree of influence.

There was no significant difference in the proportion of school psychologists in terms of how frequently they offered any of the remaining ‘Interventions’, in relation to the ‘degree of influence’ they assigned to any of the remaining ‘Theories of Behaviour’. These values can be found in Table 22, in Appendix G.

5.4 Implications of the Postal Questionnaire Results for Part Two: Semi-structured Interviews

Results from Part One of the study encouraged the school psychologists to answer questions about their professional backgrounds, their assessment practices and their theoretical orientations. Responses indicated relative commonality among the school psychologists with respect to their practices and/or perspectives in the assessment of children referred with behaviour difficulties. However, the statistical analysis revealed some interesting findings with respect to significant relationships between the categories. The categories within School Psychologist Factors, and especially level of training, were the most dominant with respect to their significant relationships with other categories. Therefore, the sample for Part Two was chosen on the basis of the school psychologists' professional training background. That is, majority of the results in Part One of the study reflected the relationship between the school psychologists' level of training and the remaining categories. According to Onwuegbuzie and Leech (2007, p.246)

> …"nested sampling deigns represent sampling strategies that facilitate credible comparisons of two or more members of the same subgroup, wherein one or more members of the subgroup represent a sub-sample of the full sample".

Hence, for the semi-structured interviews, a sub-group of five Ontario school psychologists was chosen from the full sample of Ontario school psychologists from Part One of the study. The full sample includes both Doctoral Level and Masters Level/Equivalent school psychologists. These five school psychologists represent the two main sub-samples of the full sample that are relevant to this study. That is, is the first sub-sample consists of two Doctoral Level school psychologists, while the second sub-sample consists of three Masters Level/Equivalent school psychologists. This nested sample of Ontario school psychologists were invited (via in-depth interviews) to build on, expand, refine, elaborate on and develop ideas introduced (via the postal questionnaire) by the full sample of school psychologists in Part One (Onwuegbuzie & Leech, 2007).

5.5 Data Analysis Part Two: Semi- Structured Interviews

The following section aims to answer the second research question by exploring five Ontario school psychologists' rationales for adopting any practice and/or perspectives in their assessments. As described in Chapter 4, Sjostrom & Dahlgren's (2002) outline was adopted and adapted to enable the organised, accurate coding and analyses, of the interview data. Figure 1 below displays a thematic map of the categories which evolved from the semi-structured interviews. Following the thematic map, and to facilitate clarity, the categories resulting from the participants' responses, are presented in the text below according to the organisation of the interview schedule.

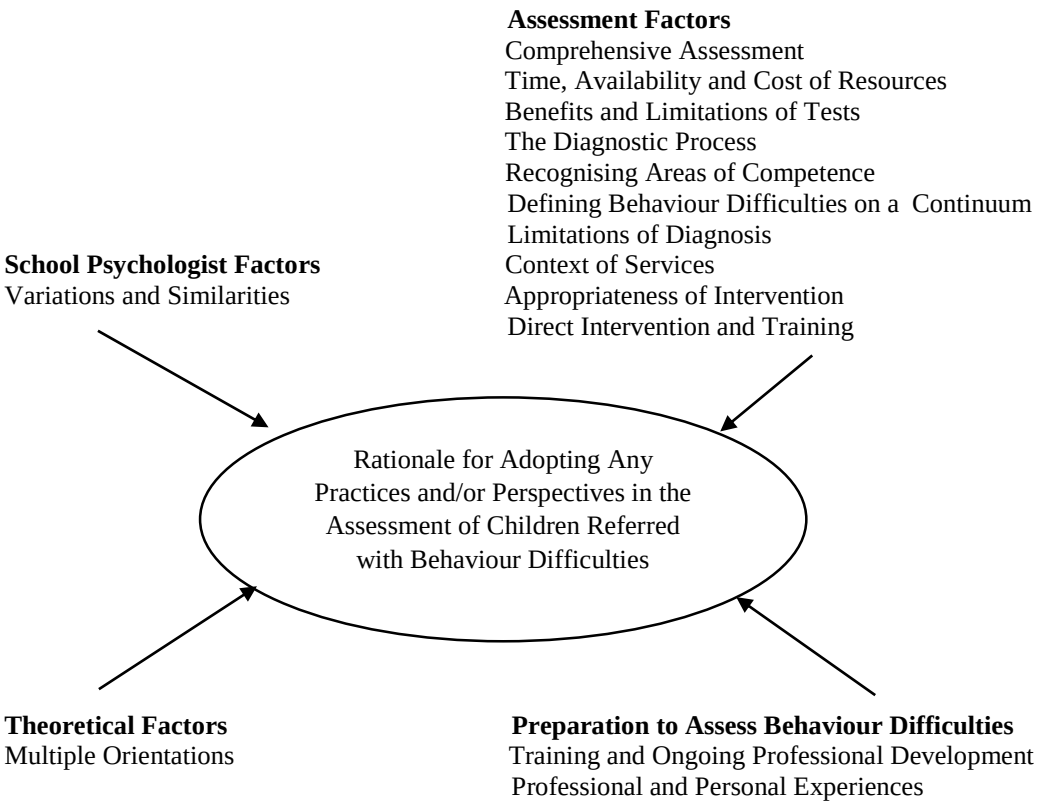

Figure 5.1: Thematic Map of Categories Evolving from Semi-Structured Interviews

School Psychologist Factors

5.5.1 Professional Background

Variations and Similarities

Table 5.17 below provides information about the professional characteristic of the five school psychologists that participated in the semi-structured interviews.

Table 5.17

Professional Background of Interviewees

	School Psychologist #1 (SP1)	School Psychologist #2 (SP2)	School Psychologist #3 (SP3)	School Psychologist # 4 (SP4)	School Psychologist #5 (SP5)
Level of Training	Masters Level/ Equivalent	Doctoral	Doctoral	Masters Level/ Equivalent	Masters Level/ Equivalent
Years of Experience	20	35	25	10	11
Registration with CPO	Yes	Yes	Yes	No	Yes

Discussions with the school psychologists highlighted both the common and unique, skills and experiences, that each of them brought to the assessment process:

> I have Masters degree in school psychology from (Name of Institution) and a (specific degree) from (Country Name) that's in school neuropsychology. (SP1)

> I used to be a Professor at a university….I worked as a research scientist and also as a psychologist….I'm registered with the College for clinical and school psychology…I am also a neuropsychologist. (SP2)

> I am a licensed psychologist in Ontario… clinical and educational mostly…I've done all kinds of work for school boards…worked in rehab with adults…and….in xxx University (name of Institution) for a couple of years. (SP3)

> I have a Masters degree in psychology…my focus is on school psychology…I am planning on getting registered at some point. (SP4)
>
> I am registered with the College…in school psychology….I have worked in school boards and for private services. (SP5)

Overall, the participants' responses illustrated both the variations and similarities in the levels of training, registration status and years of experience that currently exists in the profession of school psychology in Ontario. They also highlighted some of their individual specialisations, areas of competence and work contexts.

In the following sections, as the school psychologists responded to the interview questions, they shifted between references to the children in the vignettes and children from their own professional casework. Their responses illustrated depth and reflection. They also brought to light a number of important issues which demonstrated their reasoning and rationales for having adopted any practice or perspective in their assessments. Definitive patterns and themes (as presented in Diagram 1 above) emerged from their responses that often complemented and expanded on the findings in Part One of the study. These are presented below.

Assessment Factors

5.5.2 Assessment - Methods

Comprehensive Assessment

Part One of the study demonstrated that the majority of school psychologists used a variety of methods, so that they gathered a complete picture of a child's strengths and needs. Different tools were used so that they better understood the home, school and child related factors that may have affected the child's behaviour, and what was at the root of the behaviour difficulties. During the interviews, the participants also explained that they regularly conducted comprehensive assessments, and that this was central to their work. During the discussions the school psychologists demonstrated that insightful and purposeful planning, as well as careful decision-making, were required to understand both the nature and extent

of a child's behaviour difficulties. It was also essential that they tailored an assessment to the particular child:

> My general model is to be extremely comprehensive and get all the possible information I can. A 9 year old's ability to be sort of aware and intuitive about what's going on is really lousy because of developmental issues, not intelligence…they just don't have that self-awareness... I'd want to do a full psychological assessment work-up on the child to see if there was anything else going on that would play some role in his conduct…. I would suspect for the 14 year old girl there's much more length of history and I would try very gently to tease out from her about her perception of what she thinks is going on because she's capable of being more self- aware (SP3).

> Basically I would want to know as much about him as I could gather from as many sources as possible… to see if the behaviour is affecting learning or are there learning issues or other issues affecting behaviour…. Or some combination of the two…there is a lot I need to know and a lot of sources to explore I think (SP4)

Therefore, the reason the school psychologists conducted comprehensive assessments was so they both understood the cause of a child's behaviour difficulties, and improved or resolved the situation:

> I am really trying to find out what factors are influencing the behaviour and perhaps what they are gaining from it….and how we can improve the situation (SP4).

> For all of these cases I'm not out to blame anybody I'm out to figure it out and fix it…that's the point, fixing it (SP3).

Time, Availability and Cost of Resources

While the school psychologists explained that it was important that they conducted a comprehensive assessment, they also explained that their ability to do so was not solely determined by the methods they used. It was also influenced by the contexts in which they worked and the cost of resources. Benefits and disadvantages were found in both the public and private services context. Both SP2 and SP1 have

worked in school boards and private services and discussed the advantages of the time and resources that were available to them in private practice:

With respect to the time factor, SP2 explained,

> I will say to parents the reason you pay a lot of money is cause we do not stop our assessment until we are absolutely sure we've got everything ….as a school psychologist [in a school board] I'd say I've got 6 hours with you.

SP1 emphasised the variety of resources at a private school psychologist's disposal:

> Yeah, in a private practice we have the luxury of tools that we would never have in the public practice ….You know I can pull out a CBRF or I can have a kid get involved in a test of everyday attention… I can do a lot of different batteries and a lot of different questionnaires… anxiety questionnaires, impulse control questionnaires, other things that you [in a school board] might probably not be able to necessarily….so I do change it up.

SP5 (employed by a public school board) appreciated and recognised the value of having a wide range of resources available at one's disposal, but also indicated that it was possible to conduct a thorough assessment of a child's behaviour difficulties, despite more limited resources:

> … we certainly do not have as many different types of tests as say a private psychologist would…we have a lot but probably can't cover as much as someone might who has access to a lot of equipment…so we pretty much do the best we can with what we have and so we try to be you know a bit choosy and make sure we've got the basics covered like WISC, WIAT memory tests, questionnaires for parents and the teachers and students…that sort of thing as well ….so I think I always try to choose what I know will help me get the information I need.

However, SP1 also recognised that costs placed constraints on conducting an assessment, as it can be too expensive for some parents/guardians, thus limiting what a private school psychologist is actually able to do:

> As a private psychologist… they won't have the benefit necessarily of going to a school if they don't want to charge more…they may send out a questionnaire or they may make phone calls to people ….and also what's reasonable…it may be very expensive to give a Conners' rating scale as well as a Conners' behaviour scale as well as BASC 2 so we may end up with just a BASC 2.

Hence, it was explained that one of the benefits of being in a school board was the ability to gain access to all significant adults (parents, teachers and other professionals who may be involved) for no additional cost. Observation was also considered to be a luxury of working in the school board. The psychologists may be able to tease out the function of the behaviour once they have observed what might have triggered the problems in the school setting:

> …the luxury of the school system is just to observe the kid……after that you might find that some of the triggers or antecedents that preceded the behavioural outbursts are school related (SP1)

Hence, the participants explained that a comprehensive assessment was necessary to fully understand a child's behaviour difficulties. Nonetheless, they also recognised that their professional contexts did at times present challenges due to costs, time and the availability of resources. That is not to say they were not able to conduct thorough assessments, but that at times they were limited by their professional circumstances.

Benefits and Limitations of Tests

The school psychologists indicated that it was not simply the quantity of resources available, but also the quality and effectiveness of the methods they used, that were important in their assessments. Despite the popularity of any given method, no one test or measure provided all the answers. In fact, in some instances it was reported that test results did not accurately reflect a child's difficulties, and therefore could inadvertently mask learning problems. This was due to the construction of the test:

> …the biggest mistake people make is thinking that the WISC and the Wechsler scales are the be all and end all…. It's a wonderful screening tool but you can't stop there…….I think our biggest problem is how poorly understood academic testing is….that the problem is when you have a reading and writing disorder and you can't prove it in the academic testing 'cause the academic testing actually corrects for it ...it's probably the worst psychometric predictor of anything …. (SP1).

SP3 concurred, and further emphasised that it was the school psychologist's skill in assessing the meaning of the test results in context, and not the tests themselves that determined what was at the centre of a child's behaviour difficulties:

> …The new Conners' Comprehensive Behaviour Rating Scales are terrific because they cover a wide range of disorders as long you have a healthy measure of skepticism, because, yeah a couple of the features that might come under ADHD sometimes come under Mania…well there's no question there is no Mania playing out here…you've got to be careful about that sort of thing…not assume….psychologists diagnose, tests don't diagnose….right….that's our job (SP3)

Hence, it was explained that it was important that the school psychologists understood the benefits or limitations of any test or assessment method, as this influenced the interpretation of the results, which in turn affected the accuracy of a potential identification/diagnosis and recommendations. The school psychologists indicated that this was of notable importance with respect to cultural factors. In Part One cultural factors were indicated to be one of the seven most important things to be considered in an assessment. The interview participants explained some of the reasons why cultural factors must be considered:

> ….so suppose you get someone who's a recent immigrant… there was a guy at (Name of Institution) that said you shouldn't do an assessment for two years because you might a mistake…which was true…I used to see kids who were misdiagnosed as being retarded and they absolutely weren't retarded… it's because the psychologist didn't take into account that the kid was in a new culture and a new society and a new language and the parents are freaked out….yeah so that's why the history was so important (SP2)

> … I'll tell you, the kids culturally or for whatever reason may not exhibit the classic signs of what's an Attention Deficit Disorder…… so we have to note and very carefully supplement whatever we're observing in test scores with actual observation so that we don't make a mistake…….the kid behind the testing (SP1)

Therefore, it was explained that tests must be supplemented with other information to ensure that an accurate picture was being drawn about a child's difficulties. Nonetheless, there were some techniques that were not as well received by the participants. In Part One, the majority of school psychologists indicated that they

did not use projective techniques. However, during the interviews they explained their rationale for not using them. Their responses demonstrated that while some interesting information was gathered by using them, a lack of faith in the validity and reliability of the tool, in conjunction with questions about their administration, rendered them untrustworthy to provide meaningful results:

> We do a little bit of projective testing….but not too much…..I used to have a supervisor who used to make me do house-tree-persons…..and then I'd take them in and I'd say what does this mean supervisor…and he says see this smoke coming out of the chimney that means there's some sexual issues involved and I'd say …oh, yes sir! (SP2 with sarcasm, laughing)

> I could never wrap my head around projective tests….I have colleagues….and I'm stunned…I have no idea how the hell they get this out of this stuff and they're clearly smart intuitive excellent clinicians… but I couldn't figure it out so I didn't want to use something I had no idea what the hell I was doing with it 'cause that couldn't give me any confidence… I couldn't do it so I don't do it (SP3)

5.5.3 Assessment- Diagnosis

In Part One of the study, the school psychologists indicated the types of diagnoses they made, the diagnostic criteria they used, and the professionals that identified and/or diagnosed the behaviour difficulty and/or disorder. However, during the interviews, they discussed in greater depth some of the issues and complexities that surrounded diagnosis and what factors influenced the school psychologists' decision-making in the diagnostic process.

<u>The Diagnostic Process</u>

SP1 and SP2 discussed the intricacies of the diagnostic process and the steps that were involved along the way and that precipitated an identification and/or diagnosis:

> …..it's a differential tree, you have to differentiate what it is ….you have define is it impulsive, is it pre-meditated?…you kind of have to figure out first what's going on …with behavioural questionnaires like the CBRF 2 or the CBRF (Child Behaviour Rating Form)...because it does symptom counts .....it might help us, guide us…. we have to tease out those things first (SP1)

> ...I say find out as much as you possibly can about this kid's life…just really good detective work…..then getting all the school records and reviewing them carefully… then you make your hypotheses…so what you do depends on the what you got in the history…you don't just do the same assessment every time…you have lots of behaviour problems like this (Vignette 1) …is it because the kid is gifted, or has it to do with attachment disorders ...or….a learning disability…so you have ideas and then you test your hypothesis...and then you do your tests…our diagnoses are not based on causality but on observing symptoms (SP2)

Hence, the school psychologists explained that the steps they took when they formulated a diagnosis, involved a careful and methodical process. This included how they 'teased out' and 'ruled out' what the problem 'was' and what the problem 'was not', so that they understood how to best help the child and the situation.

Recognising Areas of Competence

As in Part One of the study, the school psychologists discussed the various diagnoses they formulated and communicated (if Registered). However, they also explained that at times there were children who demonstrated difficulties they were not able to assess, or that needed further investigation. Hence, they referred them on to another professional, as the problem was not in their area of competence:

> I make them [the diagnoses]….unless it's a very weird case…we differentiate most of the common childhood disorders... so we can do the Autism and the Asperger's and the Developmental Disabilities... the various types of learning disabilities and head injuries and you know... how it affects them functionally... and anxiety disorders and generalised anxiety disorders ….I don't do personality disorders….I don't do that (SP1)

> Yes, I have made a diagnosis of ADHD, Conduct Disorder…uh...Learning Disorder… but there are definitely or…can definitely be other professionals involved…other doctors, paediatricians….depending on the different issues involved (SP5)

Defining Behaviour Difficulties on a Continuum

The new DSM-V criteria has taken account of the 'range' of behaviour difficulties, and this provided the school psychologists with the ability to more accurately assess the pervasiveness of the problem. This in turn informed how they proceeded following a diagnosis. SP3 and SP5 explained:

> …Well the nice thing about the DSM-V ….one of things they got really right is now you're supposed to rate them on a mild to moderate to severe range which is really helpful when you think about how much this is impacting the child or a young adult's or adolescent's performance…. in a way that helps us to figure out other things we might wanna do (SP3)

> …gathering information from a variety of sources in different settings over time…this helps, with the diagnostic criteria…for pervasiveness and for persistence in behaviours over time (SP5)

Hence, it was important to the school psychologists that any diagnostic criteria reflected the reality of the behaviour continuum in order to ensure that children with behaviour difficulties were neither under-diagnosed nor over-diagnosed. In this way, a child received appropriate recommendations, interventions and/or treatments that were relative to the degree of the problem. The usefulness of any diagnostic criteria, therefore, was its ability to help the school psychologists make an informed, accurate and precise diagnosis of a disorder, when warranted.

Limitations of Diagnosis

The school psychologists indicated that there were benefits and challenges associated with whether a diagnosis should be made. In order to get additional support and services, a diagnosis of some kind was sometimes 'required'. That is, the school psychologists knew that the diagnosis of a disorder from the DSM-V and/or under the educational exceptionality of 'Behaviour', was necessary in many cases in order for a child to be provided support. However, as SP2 explained:

> Ok…this is a really important point…psychologists are in a difficult position cause if you diagnose someone… it's possible you are preventing them from learning how to cope with their problems…. on the other hand, if that person doesn't get appropriate support and help they're gonna die…. So it's really hard…should I make a diagnosis or not?

The above dilemma also highlighted the importance of understanding the difference between normal versus abnormal functioning, and the need to for the school psychologists to ensure they conducted a thorough assessment, in order to discover what was at the root of a problem(s). As the school psychologists further explained, if behaviour difficulties were accurately identified as being related to inappropriate learning environments, learning problems, processing problems, or any other issues, the chance that they provided an appropriate intervention was more likely to be realised:

> …so many kids who are serious behaviour problems acting out violently… we found out that they were very bright …we put them in a gifted class….the behaviour problems disappeared….cause they weren't bored, they weren't isolated socially as being different so forth (SP2)

> …well its important to understand the nature of abnormal and normal functioning… see what's normal in grade 2 or grade 6…to have some sense about it…it's not just the age percentile stuff on tests…you want to get some sense of where does this kid fall in the normal classroom (SP3)

5.5.4 Assessment- Intervention

In Part One of the study the participants indicated that they always provided recommendations to parents, teachers and schools following an assessment. However, there were differences with respect to whether they provided Direct Interventions. Most of the questionnaire results highlighted differences in practice due to the school psychologists' professional qualifications. During the interviews the participants provided additional insight into why they did or did not provide Direct Intervention.

Context of Services

As described in the literature, the Ontario school psychologists indicated that they worked in various contexts, which included private services/agencies and public school boards. They also explained that this influenced the types of intervention services that were available following an assessment of children referred with

behaviour difficulties. Hence, depending on what services were required, private school psychologists often offered direct intervention that was not available in a public school system:

> …well, we're just developing a wrap-around service so again this is the luxury again of working in private practice….we have therapists in parenting support, and we have… like a composite team, we have sexualised behaviours…family counselling, divorce, autism, Asperger's types of therapists ….a whole slew of them, like different… many different and complementary abilities and so we're very lucky in that way (SP1)

> …I do treatment as well, so people can get one stop shopping here (SP3)

> …direct therapy or intervention is not offered at the school board (SP4)

Appropriateness of Intervention

The interview participants also indicated that whether an intervention was offered to a child that demonstrated behaviour difficulties, depended not only upon what was causing the problem, but whether a direct intervention/therapy was appropriate for the situation:

> …I absolutely buy the fact that there's some kids where individual therapy given certain diagnostic profiles could be helpful with abuse, or PTSD or some other stuff…there's a need to actually work with the child individually… but with oppositional kids in general, that doesn't appear to be a very helpful intervention on the whole with exceptions obviously depending upon the diagnostic features playing out (SP3)

> …you figure out, just like doing an assessment…what's gonna work with this person (SP1)

> …but like a 9 year old, I'm gonna be seeing the kid once in a while, but most of the work is gonna be with the parents and teachers because they're the ones that have the opportunity to actually intervene and have the consistent day to day….so my model is coach them to intervene on these things that are gonna make things better over time….because a 9 year old can't carry any ability to change himself independently (SP3)

Direct Intervention and Training

As discussed earlier, whether or not direct intervention was offered was also influenced by the school psychologist's training. In Part One, while both Masters Level/ Equivalent and Doctoral Level school psychologists offered direct intervention, Doctoral Level school psychologists' median frequency was higher. However, during the interviews, they indicated that it was also important to consider the content of the school psychologists' training programmes. If a school psychologist was not trained to provide direct intervention (for example, therapy or counselling), than it was not a service that any school psychologist (either Masters Level/Equivalent or Doctoral Level) would have been able to offer, either in a private service or public school system:

> I don't do family therapy…it's not one of my areas because it's a very specialised model (SP3)

> I usually offer recommendations for learning and behaviour and any other issue that occurs to the school staff and family…so things they can do to help to improve outcomes for the child in question. I do not provide any direct services as I have not been trained to do so…..I am aware of them, and could recommend it as an option that the parent takes to help their child …at their own expense (SP4)

Therefore, the school psychologists explained that options for direct intervention must be considered in light of a school psychologist's training and, as mentioned earlier, whether a particular type of intervention was appropriate to the situation.

5.5.5 Theoretical Factors (Perspectives of Behaviour)

In Part One of the Study, the school psychologists were provided with a list of various theories/perspectives of behaviour which were rated in terms of their influence on practice. The findings indicated that a majority of school psychologists were influenced by the Cognitive-Behavioural perspective. This was followed by Behavioural, Biological and Social-Learning perspectives, respectively. Results in Part One also demonstrated a relationship between some of the theoretical orientations (Theories/Perspectives of Behaviour) and the frequency of use and/or

importance assigned to some of the assessment methods and types of interventions offered. During the interviews with the participants, it appeared that the relationship between theoretical orientation and practice was less formalised. That is, they did not make a direct connection between particular methods/interventions with specific theoretical models. As in Part One of the study, they were not completely dedicated to one particular theoretical model and recognised that their practice may be influenced by different theoretical orientations at different stages of the assessment process. They demonstrated a sensible and considered approach to reconciling theory and practice:

Multiple Orientations

During the interviews only one participant actually named something close to one of the listed theoretical orientations in Part One of the study. However, while the explanation indicated favouring a particular model, the participant did not appear to be confined by it:

> ….I'm largely a cognitive therapy model…because that's predominantly the model around at the moment….it seems to have the best evidence-base for intervention….but the interesting thing about cognitive therapy other people don't realise...it's a template for working with anything….you can do anything else with it so it doesn't stop you from doing other kinds of therapy and treatment that would be helpful as part of the treatment even though it has a certain model you're supposed to follow fairly consistently (SP3)

Another psychologist explained that there were 'giants' in the field that influenced ways of working with children, but also indicated that one model may not suffice for different stages of the assessment process. While one model guided the methods applied, another model may be more appropriate when determining what intervention was required to ensure effective and appropriate intervention.

> My guru is Jean Piaget….so my training is on the genetic epistemologist…which is why I like history…But as a treating psychologist I had to learn to be flexible, I had to learn that a specific structure of therapy doesn't always work that's why you get to be better and better as years go by (SP2)

> Different strokes for different folks…for sure…..and I have a problem 'cause everybody's saying now evidence-based treatment…well I can see

> that, because it's clear that cognitive behavioural therapy works way better than some other therapies…and because its research based…but cognitive behavioural therapy is not the right therapy for some people (SP2).

Hence, it appeared that overall, throughout the assessment process, the school psychologists were influenced by and embraced a balanced approach to understand and intervene with children that demonstrated behaviour difficulties:

> …well, I feel like I take a balanced approach of looking at the factors that have to do with the child being assessed, and factors outside of the child that may be influencing the behaviour problems…..I work under the premise that there is a combination of factors that are influencing and being affected by the behaviour and trying to figure out how to address them…. If the child is quite bright and is successful in his learning but is acting out….that is very different from a child who is struggling with the curriculum and is frustrated with his schoolwork and acting out (SP4)

> ... Team based and technically eclectic….I think that that you need a bit of both I mean you need to work to make sure that you're not just looking at scores, you're looking a people to get their input and that you have technical experience with scoring….like there's a human and a technical side and you need to have the ability to understand various needs and to be responsive to different things that don't necessarily sit because of the test that was administered….. you have to look at the kid behind it (SP1)

5.5.6 Preparation to Assess Children Referred with Behavioural Difficulties

In Part One of the study, the school psychologists were asked to describe the factors that were important in the assessment of children referred with behaviour difficulties. They indicated 7 categories which were described earlier. During the interviews, the school psychologists provided more insight into the assessment process, and explained what they considered best prepared them for their assessments of children referred with behaviour difficulties:

Training and Ongoing Professional Development

The participants explained that training was essential in order to effectively assess children's behaviour difficulties. However, initial training was only the beginning. Over time, the participants, and especially those that were Registered, indicated that

they were expected to not only maintain their skills, but were required to participate in ongoing professional development activities in order to ensure they kept abreast of the latest developments in the field, and continued to build their skills base. They explained why this was important:

> One of the reasons I go to (Name of Institution) workshops is because they're all researchers and clinicians…none of them are just doing research…and that is exactly what I want…people who are informed on both sides of the equation…to make me better because I can take what they tell me and use it to make my work more effective (SP3)

> ...learning never really ends….I am also taking courses and going to workshops and stuff to keep myself up to date…I enjoy that…but it is also necessary in order to make sure your skills and knowledge are always up to date… so that you are effective …(SP5)

In fact, even with years of training and experience SP1 indicated that:

> ...I am still a work in progress.

Professional and Personal Experience

Finally, the majority of school psychologists indicated that they had numerous years of professional experience. However, during the interviews they explained that they also had both professional and/or personal experiences over the years, which played a role in their understanding, and assessment of children's behaviour difficulties:

> …..my own kids….I don't think there is anything that keeps you more real than having your own kids when you're talking to another parent who's having problems with their kids, because there's a silent partnership…there's a silent sisterhood (SP1)

> …I had to learn that a specific structure of therapy doesn't always work that's why you get to be better and better as years go by …..(SP2)

> …. the more you do this the more you learn. I think that no two cases are exactly alike but your clinical experience definitely helps you gain confidence and helps you avoid missing areas that you need to assess…I feel much more confident going into to assess a situation now than I did when I first started…(SP4)

> …I have to tell you that doing a clinical interview is really a very high art that people don't get good at for a long time (SP2)

5.6 Semi- Structured Interview – Summary of Findings

A sub-group of the Ontario school psychologists were invited to discuss their rationales for adopting any practice and/or perspective in relation to their assessments of children referred with behaviour difficulties. Some of their responses complemented findings from Part One of the study. However, insights into the complexities and issues involved at different stages of the assessment process were also revealed. The ability to discuss their reasoning and rationales in a one-to-one setting provided a greater level of depth, clarity and richness with respect to understanding their practices and perspectives in the assessment process.

5.7 Conclusion

Part One and Part Two of this study have aimed to explore the factors that were related to and/or influenced the perspectives and practices of Ontario school psychologists in the assessment of children's behaviour difficulties. The use of both self-administered postal questionnaires and the semi-structured interviews provided a more complete view of their practices and perspectives, than either method would achieved alone. A discussion of the findings and their implications are found in the following chapter.

Chapter 6 Discussion

6.1 Introduction

Many children experience behaviour difficulties ranging from relatively minor disruptions to more severe and marked problems, which can result in serious consequences throughout the lifespan. A review of the literature detailed the School Psychologist, Assessment and Theoretical Factors involved in the assessment of children with behaviour difficulties. It also revealed a scarcity of studies that examined school psychologists' work in this area, and that few school psychologists in Canada and abroad have engaged in research on practice. Research on practice is an essential element in the ongoing development of professional knowledge, skills and reflective practice. This thesis set out to make a contribution to this paucity of research by exploring Ontario school psychologists' practices and perspectives in their assessments of children referred with behaviour difficulties.

The chapter will begin with a discussion of the unique contributions which this thesis makes to: a) school psychologists' professional knowledge and development at the local, national and international level, and b) the existing knowledge in the field. This will be followed by discussing the findings and answering the research questions, in light of the literature and the few studies that exist in this area. The chapter will end with a discussion of the limitations of the study, the dissemination of results and suggested directions for future research.

6.2 Significance and Contributions of the Present Study

Through daily professional work, engaging in professional development activities, and reflecting on one's own professional practice, school psychologists are able to maintain and enhance their skills and knowledge and become more effective practitioners. However, while there is recognition of the benefits of research, school psychologists are rarely involved in conducting research themselves. As a school psychologist, the researcher of this study recognised this 'gap' and understood that research on practice is an important facet in the sphere of professional development.

While research may seem daunting to some, the present study demonstrated that in order to initiate the research process, school psychologists can begin by reflecting on and engaging in research about the issues that occur in their own professional practice and contexts. In this way, they can begin to question, explore, examine, define and even reconfigure what they do, in order to best meet the needs of the children, families and schools they serve (NASP, 2006). That is, as the NASP (2006. p. 10) indicated, "research can be used for a number of purposes" in the practice of school psychology, including: justifying current practice, informing and improving practice, serving as a report card on practice, and as a basic foundation for practice (NASP, 2006). The benefits of beginning with one's own professional practice is to develop professional self-awareness that enhances and optimises ideas, skills and professional performance. Research on practice can be conducted from various standpoints including individual school psychology services departments, and proceed towards more regional, national and international focuses. In this way, school psychologists contribute to their own professional development, the field of school psychology in general, and the enhancement of the profession locally, nationally, internationally.

The present research study resulted in a number of interesting and significant findings with respect to the relationship between the School Psychologist, Assessment and Theoretical Factors that influence the practices and perspectives of the Ontario School psychologists in this study. This included the discovery of significant relationships between the Ontario school psychologists': level of training, registration status, years of professional experience, methods of assessment, diagnostic practices and interventions, as well as their theoretical perspectives of behaviour.

Hence, the present research study first contributes to the existing knowledge in the field of school psychology, by addressing the paucity of research undertaken by school psychologists (at the local, national and international level), through conducting a study in the researcher's own professional context. Secondly, this research contributes to the scarcity of studies which examines school psychologists' assessments of children referred with behaviour difficulties by exploring: 1. the factors that influence Ontario school psychologists' assessments of children

referred with behavioural difficulties and, 2. their rationales for adopting any practices and/or perspectives in their assessments.

Further, unlike previous studies that have examined isolated factors, the present study makes a unique contribution by taking a more integrated and comprehensive approach to understanding school psychologists' practices and perspectives. This mixed-methods study first explored the School Psychologist, Assessment and Theoretical Factors that influence Ontario school psychologists' assessments, and then examined their relationship to one another.

Wider implications for some of the findings in this study, include a contribution to the discussion regarding the need for training programmes, school psychology services and school psychologists, to critically review training and registration requirements, and the theoretical models that underpin school psychology in practice. These are essential to encourage excellence in practice at a local, national, and international level. Consideration of all these factors and their resulting outcomes, can play an integral role in determining the future direction of school psychology programmes, in order to ensure excellence in the preparation of the next generation of school psychologists. Research on practice can provide tangible evidence to determine the necessary route to helping the profession identify its strengths and weaknesses, in order to improve and establish itself worldwide, as a self-assured, confident profession with a clear view of its identity and value.

6.3 Discussion and Implications of the Findings:

It was determined that this thesis will answer the following research questions:

1. What do Ontario school psychologists indicate are the factors that are related to and/or influence their assessments of children referred with behavioural difficulties?

2. What do Ontario school psychologists indicate are their rationales for adopting any practices and/or perspectives in their assessments of children referred with behavioural difficulties?

Research Question One

Ontario school psychologists' indicated that the following factors were related to and/or influenced their assessments of children referred with behaviour difficulties:

School Psychologist Factors

Training

While International guidelines exist to ensure a high standard of training and competence for school psychologists (ISPA, 2012), there continues to be debate within Canada and abroad, as to what the level of training should be in order to meet these standards (Canadian Psychological Association, 2007; College of Psychologists of Ontario, 2013; Jimerson et al., 2007; National Association of School Psychologists, 2010).

As Saklofske et al. (2007, p.317) indicated, "until more Canadian school psychology training programs endorse specific accreditation standards"…"training programs across Canadian universities will continue to vary". In Ontario, changes to registration requirements will soon require Doctoral level training, for all school psychologists (College of Psychologists of Ontario, 2013). Nonetheless, research by school psychologists is sparse with respect to how changes in training are related to school psychologists' assessment practices, especially as they relate to children's behaviour difficulties.

Existing research from the United Kingdom (McCall & Farrell, 1993; Rees et al, 2003) and the United States (Shapiro & Heick, 2004) is limited and did not offer any insights into whether or how training influenced school psychologists' assessment practices, especially in the area of children's emotional/behaviour difficulties.

Given the lack of research in this area, the present study collected training level data to determine whether it influenced Ontario school psychologists' assessments. It was surprising to find that the analyses of the participants' professional

characteristics provided a first glimpse into the implications of training in the practice of school psychology. That is, it was interesting to discover that the decision to make Doctoral Level training compulsory for Registration in Ontario, may be supported by some of the findings in the current study.

First, the finding that Doctoral Level school psychologists were more likely to be Registered is surprising, at it suggested that they might of had more confidence than their Masters counterparts that their training, skills, and knowledge met the high standards of quality and competence set by the College of Psychologists of Ontario. Further to the above, it was also curious to find that even when both groups were Registered, school psychologists with Doctoral Level qualifications were more likely to, and more frequently did, make a diagnoses themselves from their assessments. This suggested that due to longer, more in-depth and extensive training programmes, the Doctoral School psychologists may have had more confidence in their skills and ability to make these diagnoses.

Other findings also suggested that Doctoral Level school psychologists might have demonstrated greater confidence in their assessment skills. The results indicated that they did not review other professionals' reports or assessments (psychological or medical) or conduct teacher interviews, as frequently as their Masters Level /Equivalent counterparts. This suggested that while they did consider input from other professionals, they did not rely as often on other professionals' opinions or findings, when they conducted their own assessments. It is less clear however, why Masters Level/Equivalent school psychologists were more likely to consider Standardised Academic Achievement Tests to be important during their assessments, as they did not use this method significantly more often than the Doctoral group.

Another notable finding was that the Doctoral Level school psychologists offered Direct Intervention more frequently than the Masters Level/Equivalent group. Given that Doctoral Level school psychologists were more likely to be Registered (as discussed earlier), and that a Direct Intervention (for example, Counselling) requires approved training and licensure, the above result was not entirely surprising.

Overall, the Ontario school psychologists indicated that their level of training was an important factor that influenced their assessment practices. Further, the findings offered some insight and contributed to the larger discussion and debate about the training of school psychologists.

Registration

Registration seeks to strengthen the work of school psychologists by certifying, regulating, and requiring them to adhere to ethical principles and their legal obligations, in their practice (Jimerson & Oakland, 2007). As discussed in Chapter Two, Ontario school psychologists must be registered when engaged in the controlled act of communicating a diagnosis and when providing certain interventions. Registration is an important factor to explore as the licensing process aims to ensure a high standard of practice, and helps the profession establish respect in the community (Farrell et al., 2007). In fact, a relationship between training and registration has already been evidenced in findings from the present study.

Unfortunately, existing studies in the United Kingdom (McCall & Farrell, 1993; Rees et al., 2003) and the United States (Shapiro & Heick) did not offer any insights with respect to the influence of Registration status in school psychologists' assessments. Yet Registration is an important factor to consider. It signals a high degree of competence and expertise in school psychology, within the profession and in the community (College of Psychologists of Ontario, 2012). As such it should strengthen school psychologists' confidence in their professional knowledge, ability and professional practice. Some of the findings in this study appeared to support this view.

First, Registered school psychologists did not refer to the DSM-V as often as their Not Registered counterparts in relation to their assessments. Hence, this suggested that they may have had more confidence in terms of their familiarity with the signs and symptoms of various disorders in the DSM-V. The finding that Registered school psychologists were more likely to, and frequently did, make a diagnosis themselves was not unexpected, as Not Registered school psychologists are not able to make and communicate diagnoses. What is more interesting, is the link between

registration, training and diagnosis. That is, even when both groups were Registered, it is the Doctoral level school psychologists that were more likely to, and frequently did, make diagnoses themselves (as discussed above).

Observation in the school yard was used less frequently and considered less important than other methods by the school psychologists. However, Registered school psychologists did not observe children in the school yard as often as the Not Registered group. This suggested that they may have had greater confidence in their ability to assess a child's difficulties even if they were unable, or choose not to, observe a child in the school yard. However, in addition to the above, it was also reasonable to consider that Not Registered school psychologists used this method more frequently, because they were required to do so under supervision.

Finally, the finding that Direct Intervention was offered more frequently by Registered school psychologists was not entirely surprising as school psychologists must be licensed to provide many of these services (for example, Counselling).

Overall, the Ontario school psychologists indicated that registration status was an important factor that influenced their assessment practices. Further, the findings may have offered some insight and contributed to the larger discussion and debate about the registration of school psychologists and its links to training.

Professional Work Experience

The National Association of School Psychologists' (NASP, 2006, p.6) task force for the 'School Psychology: Blueprint for Training and Practice III, indicated that one major change in the guide, "is the recognition that competence in school psychology emerges over time", and that expertise tends to develop in one or two areas, after 5-10 years of experience. Shapiro and Heick's (2004) study found that an increase in years of work experience was linked to an increased use of behavioural assessment techniques.

Ontario school psychologists indicated that different forms of interviewing were related to their years of professional work experience. However, it is important to note that this relationship occured in two different ways. Similar to the findings by Shapiro and Heick (2004), teacher interviews were more frequently used by more experienced school psychologists, in the present study. However, one of the school psychologists (SP2) explained that it is the actual 'skill' involved in conducting a clinical interview, which increased and became more refined over time, as presented in the report above by the NASP (2006). That is, in one instance professional work experience was associated with a specific change in the school psychologists' behaviour, whereas in the other instance, it was related to an improvement in the same behaviour.

Hence, the Ontario school psychologists indicated that their years of professional practice was a factor that influenced their practices and perspectives in their assessments of children's behaviour difficulties.

Assessment Factors

Assessment Methods, Diagnostic Practices, and Intervention

In Chapter Two, Coaley (2010) explained that psychological assessments involve an integration of multiple sources of information with a view to describing, predicting, explaining, diagnosing and making decisions about effective and appropriate interventions. Data is best collected using a wide range of assessment methods (Mash & Terdal, 1997; Ollendick & Hersen, 1984; Wenar & Kerig, 2005)

McCall and Farrell (1993), Rees et al. (2003) and Shapiro and Heick (2004) each collected data about the types of methods the school psychologists used, but did not explore their relationship to different stages of the assessment process.

In the present study, it was interesting to discover that certain diagnostic practices were linked to the frequency of use of particular assessment methods. Classroom and school yard observations, were likely to be used more often when diagnoses were being made by other professionals including, a supervising psychologist or

another mental health professional, respectively. School psychologists were also more likely to have conducted Standardised Academic Achievement when a diagnosis was being made by another mental health professional. This suggested that observation or academic achievement tests were more likely to be conducted when it was required by other professionals who may not be able to see the child, in order to provide them with the information they needed to make a diagnosis.

Increased frequency of use of Parent Interviews/Developmental History was also associated with school psychologists' use of the DSM-V criteria. This suggested that they recognised that the information parents provided about a child's history and the pervasiveness of a child's behaviour difficulties in the home context, was necessary to determine whether the difficulties were possibly indicative of a disorder, as per the DSM-V.

It was also interesting to find that the importance assigned to certain methods was related to the frequency with which interventions were offered. The findings suggested that those school psychologists' that considered reviewing a child's school based history (via the OSR) to be critical in their assessments, consistently provided recommendations to school staff. Similarly, those practitioners that considered parent checklists to be a critical source of information about a child's behaviour in the home context, consistently provided recommendations to parents.

Overall, the Ontario school psychologists indicated that their assessment methods, diagnostic practices and interventions were important factors that were sometimes related to each other and influenced their assessments of children with behaviour difficulties.

Theoretical Factors

In Chapter Two, Moore (2005) indicated that 'good practice' is a complex synthesis of both practice and theory. That is, reflective and reflexive professional practice requires an examination of one's theories as they are applied to practice (Moore, 2005). To date, there is a scarcity of research in which school psychologists describe

the theories which inform their practice in relation to their assessments of children's behaviour difficulties. In fact, the study by Shapiro and Heick (2004) was the only one that collected information about the school psychologists' theoretical orientations. However, it did not offer any insights as to whether the school psychologists' theories of behaviour were related to their assessment practices.

Woods and Farrell (2006) examined school psychologists' general theories in relation to their assessment practices, in England and Wales. Forty percent of the school psychologists did not respond to a question requesting them to specify their theoretical orientation. For the present study, a list of theoretical perspectives was provided with a choice to add 'other' perspectives, on the questionnaire. This approach resulted in stronger feedback and a better understanding of the theoretical underpinnings that influenced practice. Descriptively, the findings indicated that the Cognitive-Behavioural, Behavioural, Biological and Social-Learning theories, respectively, were favoured by the majority of school psychologists, as having influenced their assessment practices with children referred with behavioural difficulties. However, the findings also demonstrated that for school psychologists who have a stronger or weaker affiliation with certain theories, there was a significant relationship to some of the assessment methods (frequency of use and importance) and interventions they utilised or applied.

With respect to their methods of assessment, results indicated that the school psychologists that were more strongly influenced by a Behavioural Perspective, frequently reviewed Previous Psychological Reports. They were likely trying to gather information about the child's behaviour difficulties which was observable, measurable and overt. This information may be found in previously collected assessment data such as observation (in the classroom or school yard), and behaviour questionnaires/rating scales (completed by parents, teachers and the student) which provide information about the frequency, degree and duration of distressing behaviours, at the time. These reports may also indicate the types of reinforcement programmes currently in place, including measured effectiveness of the programmes to date.

However, those school psychologists that were more strongly influenced by a Social Learning Perspective, may have wished to better understand a child's social and behaviour history. Therefore, they reviewed the Ontario Student Record more often as it can provide a history of the child's social and behavioural responses to others' behaviours (including teacher, students, school staff), in the classroom and at the school.

School psychologists that were the 'least' strongly influenced by an 'Ecological Perspective' were less likely to consider that a child's problematic behaviour was influenced by systems, and the physical-spatial and/or social environment. Therefore, they rarely if ever, conducted Classroom Observations. They were likely to consider observation in the classroom as unhelpful, and observing child-classroom interactions (which can often be brief due to time, or in some cases, cost) as offering little value, in terms of understanding what is causing the child's behaviour difficulties.

Further, those school psychologists that were more strongly influenced by a 'Biological Perspective' were likely to have considered that a child's problematic behaviour might have a biological basis. Therefore, they would have considered a review of Medical Reports to be important in order to help determine whether there was a biological or medical issue that influenced or possibly caused the problem. They were also more likely to be interested in whether or not medications were currently being taken by the child demonstrating behaviour difficulties and would have been able to locate this information in a medical report.

With respect to their intervention practices, those school psychologists that were more strongly influenced by a Social-Learning Perspective more frequently referred a child to an external professional (such as a social worker, youth counsellor). They likely recognised when another professional could provide better or more opportunities for the child to model, improve and change problematic behaviours, than could be accessed through the school, or from the school psychologist that assessed the difficulties.

Finally, the findings also suggested that those school psychologists that did not strongly subscribe to a Humanistic perspective, rarely if ever, recommended Direct Intervention services such as counselling or other strategies to build self-esteem and self-motivation, in order to improve behaviour. Rather, they were likely to believe in taking a broader approach to improving behaviour in school such as, helping teachers and staff in the development of individualised education programmes, conducting workshops for teachers in behaviour management techniques, and developing behaviour management programmes.

Overall, the Ontario school psychologists indicated that their theoretical orientation was an important factor that was related to their assessment methods and interventions and influenced their assessments of children with behaviour difficulties.

Research Question 2

In Chapter 5, the school psychologists' explained their rationales for adopting any practice or perspective in their assessments. These are discussed below within the context of the literature and with respect to the findings in Part One of the study. It is worth noting at this juncture, that in the studies by McCall and Farrell (1993), Rees et al. (2003) and Shapiro and Heick (2004), interviews were not conducted. Therefore, these studies did not provide insights beyond their survey results, which have been discussed earlier. Overall, the interview responses complemented and expanded upon, the findings in Part One of the study.

School Psychologist Factors

To briefly reiterate, results from Part One of the study demonstrated that there were statistically significant differences with respect to the school psychologists' use of certain assessment methods, diagnostic practices and interventions, based on or in relation to, their professional characteristics (level of training (predominantly), registration status, and years of professional work experience). Yet despite these differences, the interviews and anecdotal information from the questionnaires

highlighted their overall agreement, that understanding a child's behaviour difficulties, and the ability to effectively address them, was the reason they regularly used a variety of methods, and conducted thorough and comprehensive assessments.

Further, as discussed by Saklofske et. al (2007), the school psychologists concurred in the interviews that the utilisation of certain assessment methods, the ability to make a diagnoses, and the implementation of different interventions, did not only depend on their level of confidence (as suggested in Part One), but also their competence in any given area. Everything from their choice of methods to the application of interventions, depended on the content of their training and their areas of competence, as formally recognised by the College of Psychologists of Ontario.

To continue, in Chapter Two, the literature also highlighted the value of experience in professional practice and behaviour (Tesluk & Jacobs, 1998). In Part One, years of professional experience were found to be significantly related to the frequency of use of teacher interviews. However, during the interviews, the school psychologists explained that they saw value in both the personal and professional experiences they have gained over time. They were aware and have indicated that their skills and knowledge developed with practice and over time. The reason they appreciated and valued both their personal and professional experiences, was that they each brought greater depth and understanding to their assessments of children's behaviour difficulties.

Therefore, the Ontario school psychologists explained that despite some differences in certain assessment practices based on their professional characteristics, they all aimed to be as comprehensive as possible in order to understand children's behaviour difficulties. This is the reason they all applied a wide range of methods during their assessments. They also explained that they must be trained, competent and confident, in order to use any method and/or provide any service, and that they did not go outside of their scope of competence, as deemed by the College of Psychologists of Ontario. Finally, they explained that it was both their personal and

professional experiences over time that also enhanced their skills and understanding of children with behaviour difficulties.

Assessment Factors

There are reasons why school psychologists may or may not use certain methods, engage in certain diagnostic practices or offer particular interventions. A review of the literature (Saklofske et al., 2007; Tesluk & Jacobs, 1998) and results in Part One demonstrated that training, registration status and experience were significantly related to some of the participants' assessment practices. However, the interviews provided greater insight into why the Ontario school psychologists may or may not have adopted certain practices in their assessments.

The participants explained that the context in which they worked influenced their assessments practices. That is, there were both benefits and limitations in working in either the public school board or a private service. Availability of testing materials, and the luxury of having more time to conduct assessments, were definite advantages of working in private agencies. However, school psychologists in a private context also indicated that while they indeed appreciated these advantages, their ability to utilise them was limited by the fact that they also created additional costs which parent(s)/guardians may or may not be willing to accept.

In addition to contextual factors, the participants also explained that the reason they chose not to use a given method was due to its obvious limitations, poor construction, or the fact that it was unsuitable to use in particular contexts, as discussed in the literature (Bracken, 1988; Coaley, 2010). For example, cultural awareness and sensitivity was essential in the assessment process. Some methods/tests failed to account for cultural factors. Therefore, it was the school psychologists' responsibility to ensure that they were assessing and making identifications/diagnoses using a wide range of well-designed, relevant and culturally fair methods. Overall, they indicated that it was the school psychologists' responsibility to be ethical and competent in their work by recognising that a test alone does not have 'the answer' and that it was their expertise in choosing and interpreting tests, that made them professionals.

In addition to the need to use meaningful and valid methods, a review of the literature also specified the various types of diagnostic criteria, categories, labels, and formal diagnoses that school psychologists use to identify a child's behaviour difficulties (Florian et al., 2006). In Part One, the results indicated that the majority of school psychologist used the DSM-V. However, the reason they used the DSM-V was that it accounted for a range of difficulties which was helpful with respect to determining whether or not a child's behaviour was possibly indicative of a more serious problem.

Following an assessment and diagnosis, a range of intervention options may be offered by school psychologists to support students, schools and families. (Canadian Psychological Association, 2007; Cooper & Jacobs, 2011). However, the availability of various interventions in Ontario and Canada are often influenced by training, registration status, work contexts, district policies and funding (Saklofske et al., 2007). Results from Part One demonstrated statistically significant relationships between interventions offered, and school psychologists' level of training, registration status, and assessment methods. Findings from the interviews concurred with findings in the literature and the findings in Part One, that their ability to offer any form of intervention was influenced by their training, areas of competence, and their work contexts. However, they also explained that the appropriateness of the intervention also determined whether or not they would use it.

Hence, the school psychologists indicated that for each individual practitioner, training, competence, work contexts, the availability of resources, the effectiveness of diagnostic guidelines, and the appropriateness methods/interventions, influenced their assessments of children with behaviour difficulties.

Theoretical Factors

In Chapter 1, Moore (2005) explained that theory and practice inform each other, are continually in flux, and are drawn upon to meet the complicated and changing dynamics of school psychologists' present contexts. Therefore it is important for school psychologists to recognise the reciprocal value of reflecting on theory and

practice. It is worth noting that the school psychologists did not specifically name theories of behaviour, but rather used names of famous psychologists or other descriptors, to define their theoretical orientations. In hindsight it may also have been helpful to have provided a list of theories to get more specific responses. Nonetheless, the interviews offered valuable insights as to how the school psychologists related theory to practice.

Generally, the school psychologists' interview responses concurred with the results in Part One (in the 7 most important factors section, p. 103), which suggested a more balanced understanding of behaviour difficulties, and which adopted a more comprehensive view that considered both internal and external factors, as impacting children's behaviour. They explained that their assessments aimed to understand all possible factors that influenced a child's behaviour by using various methods to examine multiple domains. This suggested that their views were more consistent with a Bio-Psycho-Social model (see Chapter Two) and that as professionals they were reflective and adaptive to the needs of each child that was referred. However, some of the findings also suggested that for those school psychologists that rated certain theoretical orientations as having little to no influence in their work, there may have been a reduced use of certain methods or interventions. As the literature indicated (Jones 2003; Kendall, 2000; Mash & Terdal, 1997), and as the school psychologists explained, whether or not any theoretical orientation(s) is preferred, there are situations whereby favouring or dismissing any particular theory, may not be helpful, and may actually be detrimental, in the assessment process.

Hence, through the interviews the school psychologists were able to discuss their rationales for adopting certain practices or perspectives, which provided greater insight and understanding as to how these influenced their assessments of children referred with behaviour difficulties.

6.4 Limitations of the Study

A few limitations must be noted with respect to this study. First, given the small sample size of this study, the results must be read with caution as they cannot be generalised beyond the study's population. While the study did produce some significant findings, it will be necessary to conduct this research on a much larger scale in Ontario or even across Canada, in order to determine whether they are representative of the target population, and to ensure plausibility in the interpretation of the findings.

With respect to the design of the research instruments, every effort was made to create and design a postal questionnaire and interview schedule (including vignettes) that were both valid research instruments (that is, they are measuring what they claim to measure), in order to encourage confidence in the validity of the research methods. However, their reliability (that is, their ability to replicate/reproduce the same results) was somewhat more challenging to ensure. This is due to the fact that, as Robson (2004) explains, this is the first time that these two particular research instruments were being administered. However, reliability can be improved via the use of pilot work which was conducted in both phases of the study (see Appendix A). Nonetheless, the ability of these methods to replicate the present results can only be determined if they are used in future studies of Ontario School Psychologists. Hence, the results of this study must be interpreted with caution, as at present, they have not been replicated, and therefore cannot yet be generalised beyond the current population being studied.

6.5 Dissemination of Results

This research study and its results are intended mainly for local, national and international audiences of school psychologists, in an effort to encourage ongoing professional development through the use of research on practice. The results are not intended to be used or interpreted by those outside of the profession, as it was a research study about qualified school psychologists, and the factors that influenced their assessments. The results in this study are not intended to be used to debate

which psychologists or psychology services are more competent. Rather, its aim is to encourage school psychologists to reflect on the reciprocal benefits of research on practice, when considering how to maximise their effectiveness and outcomes in their professional work. This research study therefore provides a means to collaborate with colleagues at a local, national or international level. Hence, a dissemination of the findings would be of most benefit at national or international conferences, and in professional journals related to the theory and practice of school psychology.

6.4 Directions for Future Research

The present study explored the factors that influenced Ontario school psychologists' practices and perspectives in the assessment of children referred with behaviour difficulties. Future research in this area should include studies of a much larger sample of school psychologists in Ontario, Canada and internationally. Further, any research should aim to take a comprehensive view and consider the School Psychologist, Assessment and Theoretical Factors that may influence school psychologists' practices and perspectives in the assessment of children's behaviour difficulties.

Future research should also expand beyond the assessment of children's behaviour difficulties, to include other areas (such as learning difficulties) and conducting a comprehensive evaluation of the factors that may be influencing school psychologists' practices or perspectives. It is hoped that the present study will be a catalyst for school psychologists locally, nationally and internationally to consider the importance of research, towards enhancing their professional development and the advancement of school psychology. There is indeed a need for further research that places school psychologists' at the forefront in terms of both conducting and participating in the research process. Ongoing advancement of the field depends on these research activities.

Finally, future research should aim to explore the theoretical underpinnings that inform school psychologists' practices in any area, in order to benefit from making reflective and reflexive practice central to their professional work.

6.7 Conclusion

Children all around the world demonstrate behaviour difficulties ranging from mildly annoying and relatively minor problems to more significant and marked behaviours. Severe behaviour problems can cause considerable anguish to children's lives, and the lives of their parents and teachers. They have also been associated with later difficulties including criminal behaviour, mental health problems, drug and alcohol misuse, relationship breakdowns and poor work histories. Given the importance of assessing and addressing these difficulties, it is critical for school psychologists to reflect upon and consider their practices and perspectives to ensure they are delivering the highest standards of professionalism and service. One way this can be accomplished most effectively is by conducting research on practice, whether at the personal, local, national, or international level. However, few school psychologists actually engage in research on practice.

This thesis aimed to make a contribution to the existing knowledge in the field of school psychology by addressing the paucity of research conducted by school psychologists. By using a mixed methods approach and applying a comprehensive framework that examined School Psychologist, Assessment, and Theoretical Factors, this study provided a novel and more thorough understanding of the factors that influenced Ontario school psychologists' assessments of children referred with behaviour difficulties, as well as, considering their implications for training, registration, and ongoing professional development.

As Brown and Dowling (1998, p.1) explained, "the experience of research is that it is difficult and frustrating and that it takes a lot of time and causes a lot of tears. But eventually, it can generate ways of looking at the world which you didn't have before, which can motivate real developments in your professional practice." It is time for school psychologists everywhere and at every level, to meet the challenge

of embracing and participating in research on practice as an essential element to: their ongoing professional development, the advancement of the profession, and the promotion of school psychology worldwide.

References

Achenbach, T. M. and Edelbrock, C.S. (1978). 'The classification of child psychopathology: a review and analysis of empirical efforts'. *Psychological Bulletin*, 85 (6), 1275-1301.

Aldridge, A. and Levine, K. (2001). *'Surveying the Social World: Principles and Practice in Survey Research'.* Buckingham: Open University Press.

Allpsych Online (2014). *'Humanistic Theory'.* [On-line] Available at: http://allpsych.com/personalitysynopsis/humanistic_research.html

American Psychiatric Association (2013). '*Diagnostic and Statistical Manual of Mental Disorders* (5th ed.)'. Washington, DC: American Psychiatric Association.

American Psychological Association (1999). '*Standards for Educational and Psychological Testing'.* Washington, DC: American Psychological Association.

Angell, B. and Townsend, L. (2011). *'Designing and Conducting Mixed Methods Studies'.* Workshop for the 2011 Society for Social Work and Research Annual Meeting. New Jersey: Institute for Health, Health Care Policy and Aging Research at Rutgers, The University of New Jersey.

Association of Chief Psychologists with Ontario School Boards (2012). '*Conduct Disorder'.* [On-line] Available at: www.acposb.on.ca/cd.html. Last accessed 29th September 2012.

Ayers, H., Clarke, D. and Murray, A. (1998). *'Perspectives on Behaviour: A Practical Guide to Effective Interventions for Teachers (Second Edition)'.* London: David Fulton Publishers.

Bandura, A. (1977). '*Social Learning Theory'.* New York: General Learning Press.

Barkely, R. A. (1997). 'Attention-deficit/hyperactivity disorder', in E.J. Mash and L.G. Terdal (eds.) *Assessment of Childhood Disorders (Third Edition).* London: The Guilford Press.

Barter, C. and Renold, E. (1999). 'The use of vignettes in qualitative research'. *Social Research Update 25,* [On-line] Available at: http://sru.soc.surrey.ac.uk/SRU25.html. Last accessed 17th February, 2012.

Behaviour Problems in Children (2011). *'Behaviour problems in children'.* [On-line] Available at: http://behaviourproblemsinchildren.org**.** Last accessed 8th June, 2011.

Blaxter, L., Hughes, C. and Tight, M. (1996). '*How to Research' (Second Edition).* Buckingham: Open University Press.

Bracken, B.A. (1988). 'Ten psychometric reasons why similar tests produce dissimilar results', *Journal of School Psychology,* 26, 155-166.

British Psychological Society (2014). *'Educational psychology''.* [On-line] Available at: http://careers.bps.org.uk/area/education

Brown, A. and Dowling, P. (2003). *'Doing Research/Reading Research: A Mode of Interrogation for Education.* London: RoutledgeFalmer.

Brown, M.B., Swigart, M.L., Bolen, L.M., Hall, S.W. and Webster, R.T. (1998). 'Doctoral and nondoctoral practicing school psychologists: are there differences?', *Psychology in the Schools,* 35(4), 347-354.

Bryman, A. (1992). 'Quantitative and qualitative research: further reflections on their integration', in J. Brannen (ed.) *Mixing Methods: Qualitative and Quantitative Research.* Aldershot: Avebury.

Bryman, A., Becker, S. and Sempik, J. (2008). 'Quality criteria for quantitative, qualitative and mixed methods research: a view from social policy'. *International Journal of Social Research Methodology,* 11 (4), 261-276.

Bryman, A. (2013). 'Quality issues in mixed methods research'. Lunchtime Research Seminar at School of Economics and Management, Free University of

Cameron, R. (2011). '*Quality frameworks and procedural checklists for mixed methods research',* [On- line] Available at: http://avetra.org.au/up-content/uploads/2011/09/Quality-frameworks-and-procedural-checklists-for-mixed-methods-research.pdf Last accessed 10th January, 2014.

Canadian Psychological Association (2000). '*Canadian Code of Ethics for Psychologists'*. Ottawa: The Canadian Psychological Association.

Canadian Psychological Association (2007) *'Professional Practice Guidelines for School Psychologists in Canada'.* Ottawa: The Canadian Psychological Association.

Carroll, C. (2011). *'Leaving special school: post-16 outcomes for young adults with specific language impairment'*. PhD Thesis, London: Institute of Education.

Children's Mental Health Ontario (2013). *'Mental health disorders in children and youth'.* [On-line] Available at: http://www. kidsmentalhealth.ca/parents/signs_disorder.php

Children's Services and Lifelong Learning (2015). *'Special education needs (SEN)-statement'*. [On-line] Available at: www.hounslow.gov.uk/index/education_learning/schools_and colleges/sen_assessment.htm

Coaley, K. (2010). *'An Introduction to Psychological Assessment and Psychometrics'.* London: Sage.

Cohen, L., Manion, L. and Morrison, K. (2003). *'Research in Education' (Fifth Edition).* London: RoutledgeFalmer.

College of Psychologists of Ontario (2013). '*Registration Regulation Proposed Amendment*'. [On-line] Available at: www.cpo.on.ca/uploadedFiles/Content/Resources/Legislaton_Regulations_and_by-Laws/Regulations/PsychologyRegistrationRegulationAmendmentsOct2013Draft(1).pdf Last accessed January 2014.

College of Psychologists of Ontario (2009). *Standards of Professional Conduct*. Toronto: College of Psychologists of Ontario.

College of Psychologists of Ontario (2012). *The College of Psychologists of Ontario.* [On-line] Available at: www.cpo.on.ca

Collins, K.M.T., Onwuegbuzie, A.J. and Jiao, Q.G. (2007). 'A mixed methods investigation of mixed methods sampling designs in social and health science research'. *Journal of Mixed Methods Research,* 1, 267-294.

Cooper, P. and Jacobs, B. (2011). *'Evidence of Best Practice Models and Outcomes in the Education of Children with Emotional Disturbance/Behavioural Difficulties: An International Review'*. National Council for Special Education Research Report No.7.

Copeland, E.P. and Miller, L.F. (1985). 'Training needs of prospective school psychologists: the practitioners' viewpoint'. *Journal of School Psychology*, 23 (3), 247-254.

Creswell, J.W. (2014). *'Research Design: Qualitative, Quantitative, and Mixed Methods Approaches (Fourth Edition). London: Sage Publications Ltd.*

Creswell, J. W. and Plano Clark, V.L. (2011). *'Designing and Conducting Mixed Methods Research (Second Edition).* London: Sage Publications.

Crotty, M. (2004). *'The Foundations of Social Research: Meaning and Perspective in the Research Process'.* London: Sage Publications.

Curtis, M.J., Hunley, S.A., Grier, J. and Chesno, E. (2002). 'Relationships among the professional practices and demographic characteristics of school psychologists'. *School Psychology Review,* 31(1), 30-42.

Dellinger, A.B. and Leech, N.L. (2007). 'Towards a unified validation framework in mixed methods research'. *Journal of Mixed Methods Research,* 1, 309-332.

De Vaus, D. (2002). *'Surveys in Social Research (Fifth Edition)'.*: London: Routledge.

Earle, J. (2013). *'Emotional and behavioural problems',* in BMA Board of Science, Growing up in the UK: Ensuring a Healthy Future for Our Children. BMA Publications Unit.

Farrell, P.T, Jimerson, S.R. and Oakland, T.D. (2007).*'School psychology internationally: a synthesis of findings',* in S.R. Jimerson, T.D. Oakland and P.T.

Farrell (eds.) The Handbook of International School Psychology. London: Sage Publications.

Fischman, M. W. (2000) 'Informed consent', in B.D. Sales and S. Folkman (eds.) *Ethics in Research with Human Participants.* Washington: American Psychological Association.

Flamand, L. (2014). *Critique of social cognitive theory'.* [On-line]Available at: http://www.ehow.com/about_5402265_critique-social-cognitive-theory.html

Flick, G. L. (2011). *'Understanding and Managing Emotional and Behavioural Disorders in the Classroom'.* New Jersey: Pearson Education Inc.

Florian, L., Hollenweger, J., Simeonsson, R.J., Wedell, K., Riddell, S., Terzi, L. and Holland, A. (2006). 'Cross-cultural perspectives on the classification of children with disabilities: part 1. issues in classification of children with disabilities.' *The Journal of Special Education,* 40 (1), 36-45.

Folkman, S. (2000). 'Privacy and confidentiality', in B.D. Sales and S. Folkman (eds.) *Ethics in Research with Human Participants.* Washington: American Psychological Association.

Frederickson, N., Cameron, S., Dunsmuir, S., Graham, B. and Monson, J. (1998). 'Professional training in educational psychology: Then, now and in the new millennium', in N. Frederickson and I. Lunt (eds.) *Professional Training in Educational Psychology: The Next 50 Years.* Leicester: The British Psychological Society.

Freedheim, D. K. and Weiner, I. B. (2003). '*Handbook of Psychology: History of Psychology'.* Hoboken: John Wiley & Sons.

Freeman, K.A. (2004). 'Introduction to special issue on adolescent conduct problems'. *Behavior Modification,* 28 (3), 323-330.

Gallant, J., Storch, E.A.,Valderhaug, R. and Geffken, R.(2007). 'School psychologists' views and management of obsessive-compulsive disorder in children and adolescents'. *Canadian Journal of School Psychology,* 22(2), 205-218.

Ghaemi, N. S. (2006). 'Paradigms of psychiatry: eclecticism and its discontents'. *Current Opinion in Psychiatry,* 19(6):619-624.

Gonzalez-Prendes A. A. and Resko, S.M. (2012) 'Cognitive-behavioral therapy' in S. Ringel and J. R. Brandell (Editors) *Trauma: Contemporary Directions in Theory, Practice and Research'.* London: Sage Publications Inc.

Hall, J.D. (2002). 'Contemporary practices in school psychology: a national survey of roles and referral problems'. *Psychology in the schools,* 39(3),327-335.

Hutchison, E.D. and Wood Charlesworth (2011). 'Theoretical perspectives on human development,' in E.D. Hutchison and Contributors *'Dimensions of Human Behaviour: Person and Environment (Fourth Edition)'.* London: Sage Publications Ltd.

International School Psychology Association (2012). [On-line] Available at: www.ispaweb.org/NewSite/html3/index.html. Last accessed 20th May, 2012

International School Psychology Association (2012). [On-line] Available at: www.ispaweb.or/guidelines-for-the-preparation-of-school-psychologists. Last accessed 20th May, 2012.

International School Psychology Association (2012). '*A definition of school psychology*'. [On-line] Available at: www.ispaweb.org/Documents/definition_fulldoc.html. Last accessed 20th May, 2012.

International School Psychology Association (2012). '*The ispa code of ethics'.* [On-line] Available at: www.ispaweb.org/Documents/ethics_fulldoc.html. Last accessed 20th May 2012.

Jenkins, N., Bloor, M., Fischer, J., Berney, L. and Neale, J. (2010). 'Putting it in context: the use of vignettes in qualitative interviewing'. *Qualitative Research,* 10, 175-198.

Jesson, K., Matheson, L. and Lacey, F.M. (2011). *'Doing Your Literature Review: Traditional and Systematic Techniques'.* London: Sage Publications Ltd.

Jimerson, S.R., Oakland., T.D. and Farrell P.T. (2007). *'Introduction to the handbook of international school psychology',* in S.R. Jimerson, T.D. Oakland and P.T. Farrell (eds.) The Handbook of International School Psychology. London: Sage Publications.

Jones, R. A. (1995). '*The Child-School Interface Environment and Behaviour'.* London: Cassell.

Jones, R. A. (2003). 'The construction of emotional and behavioural difficulties'. *Educational Psychology in Practice,* 19 (2), 147-157.

Jordan, J.J., Hindes, Y. L. and Saklofske, D.H. (2009). 'School psychology in Canada: a survey of roles and functions, challenges and aspirations'. *Canadian Journal of School Psychology,* 24, 245-264.

Kendall, P.C. (2000). '*Childhood Disorders'.* East Sussex: Psychology Press Ltd Publishers.

Laerd Dissertation (2012). *'Non-probability sampling'.* [On-line] Available at: http://dissertation.laerd.com/non-probability-sampling.php. Last accessed Dec. 14, 2013.

Laslett, R., Cooper, P., Maras, P., Rimmer, A. and Law, B. (1998). '*Changing Perceptions: Emotional and Behavioural Difficulties Since 1945'.* East Sutton: The Association of Workers for Children with Emotional and Behavioural Difficulties.

Leydon, G. (1999). 'Time for change: the reformulation of applied psychology for LEAs and schools'. *Educational Psychology in Practice,* 14 (4), 222-228.

Lunt, I. (2002). Competence, fitness for practice and continuing professional development: the ethical basis of educational psychologists' practice'. *Educational and Child Psychology,* 19 (1), 70-80.

MacConville, R., & Rae, T. (2012). '*Building Happiness, Resilience and Motivation in Adolescents: A Positive Psychology Curriculum for Well-Being'.* London: Jessica Kingsley Publishers.

Mash, E.J. and Terdal, L.G. (1997). '*Assessment of Childhood Disorders' (Third Edition).* London: The Guilford Press.

Mash, E.J. and Terdal, L.G. (1997). 'Assessment of child and family disturbance: a behavioural-systems approach', in M. Mash and E.G. Terdal (eds.) *Assessment of Childhood Disorders (Third Edition).* London: The Guilford Press.

McCabe, K.M., Hough, R. Wood, P.A. and Yeh, M. (2001). 'Child and adolescent conduct disorder: a test of the developmental taxonomy'. *Journal of Abnormal Child Psychology,* 29 (4), 305-316.

McCall, L. and Farrell, P. (1993). 'Methods used by educational psychologists to assess children with emotional and behavioural difficulties'. *Educational Psychology in Practice,* 9 (3), 164-169.

McMahon R. J. and Estes A. M. (1997). 'Conduct problems', in E.J. Mash and L.G. Terdal (eds.) *Assessment of Childhood Disorders (Third Edition).* London: The Guilford Press.

Miller, D.N. and Jome, L.M. (2010). 'School psychologists and the secret illness: perceived knowledge, role preferences, and training needs regarding the prevention and treatment of internalizing disorders'. *School Psychology International,* 31, 509-520.

Ministry of Education (2001). *'Special Education: A Guide for Educators'*. Toronto: Ministry of Education, Ontario.

Ministry of Education (2004). *Special Education Funding Guidelines: Intensive Support Amount (ISA) Level 1 and Special Incidence ISA'.* Toronto: Ministry of Education, Ontario.

Moore, J. (2005). 'Recognising and questioning the epistemological basis of educational psychology practice'. *Educational Psychology in Practice,* 21 (2), 103-116.

National Association of School Psychologists (2010). *'Standards for graduate preparation of school psychologists'.* [On-line] Available at: www.nasponline.org/standards/2010standards/1_Graduate_Preparations.pdf Last accessed January, 2014.

National Association of School Psychologists (2006). '*School Psychology: A Blueprint for Training and Practice III'.* Bethseda: National Association of School Psychologists.

National Children's Bureau (2004). *'Group-based Parenting Programmes and Reducing Children's Behaviour Problems'*. Highlight No. 211, London: National Children's Bureau.

National Health Service UK (2014). '*Cognitive behavioural therapy (cbt)'.* [On-line] Available at: http:www.nhs.uk/conditions/Cognitive-behavioural-therapy/Pages/Introduction.aspx

New Brunswick Department of Education (2001). *'Guidelines for professional practice for school psychologists'.* Fredericton: New Brunswick Department of Education.

O'Cathain, A. (2010). 'Assessing the quality of mixed methods research: towards a comprehensive framework', in A. Tashakkori and C. Teddlie (eds.) *SAGE Handbook of Mixed Methods in Social and Behavioral Research* (Second Edition). London

O'Donnell, A.M., D'Amico, M., Schmid, R.F., Reeve, J. and Smieh, J.K. (2007). *'Educational Psychology: Reflection for Action (Canadian Edition).* New Jersey: Wiley & Sons Inc.

Oakland, T.D and Jimerson, S.R. (2007). 'School psychology internationally: a retrospective view and influential conditions', in S.R. Jimerson, T.D. Oakland and P.T. Farrell (eds.) *The Handbook of International School Psychology*. London: Sage Publications.

Oakland, T., Goldman, S. and Bischoff, H. (1997). 'Code of ethics of the international school psychology association', *School Psychology International,* 18, 291-298.

Oakley, A. (1999). 'People's ways of knowing: gender and methodology', in S. Hood, B. Mayall and S. Oliver (eds.) *Critical Issues in Social Research: Power and Prejudice.* Buckingham: Open University Press.

Offord Centre for Child Studies (2008). *'Centre of Knowledge on Healthy Child Development'.* [On-line] Available at: www.knowledge.offordcentre.com Last accessed 30th May, 2011.

Ollendick, T.H., and Hersen, M. (1984). *'Child Behavioral Assessment: Principles and Procedures'.* Oxford: Pergamon Press Inc.

Onwuegbuzie, A.J. and Leech, N.L. (2007). 'Sampling designs in qualitative research: making the sampling process more public'. *The Qualitative Report,* 12 (2), 238-254.

Oppenheim, A.N. (1992). '*Questionnaire Design, Interviewing and Attitude Measurement (New Edition)'.* London: Pinter Publishers.

Powell, N. P., Boxmeyer, C.L., Baden, R., Stromeyer, S., Minney, J.A., Mushtaq, A. and Lochman, J.E. (2011). 'Assessing and treating aggression and conduct problems in schools: implications from the coping power program'. *Psychology in the Schools,* 48 (3), 233-242.

Rae, T., & MacConville, R. (2014). Using Positive Psychology to Enhance Student Achievement: A Schools-Based Programme for Character Education London: Routledge.

Rees, C., Farrell, P. and Rees, P. (2003). 'Coping with complexity: how do educational psychologists assess students with emotional and behavioural difficulties?'. *Educational Psychology in Practice,* 19 (1), 35-47.

Reisinger, L. (2014). 'Using a bio-psycho-social approach for students with severe and challenging behaviour'. *Learning Landscapes,* 7 (2), 259-270.

Renold, E. (2002). 'Using vignettes in qualitative research'. *Building Research Capacity*, Issue 3, 1-12.

Robson, C. (2004). *'Real World Research (Second Edition)'.* Oxford: Blackwell Publishing.

Royal College of Psychiatrists (1999). 'Behaviour problems and conduct disorder', in G. Tufnell (ed.) *Mental Health and Growing Up: Factsheets for Parents, Teachers and Young People*. London: Gaskell.

Royal College of Psychiatrists (2014). *'Cognitive behavioural therapy (cbt)-considerations'.* [On-line] Available at: http://www.nhs.uk/Conditions/Cognitive-behavioural-therapy/Pages/Advantages.aspx

Saklofske, D.H., Schwean, V.L., Harrison, G.L and Mureika, J. (2007). *'School psychology in Canada',* in S.R. Jimerson, T.D. Oakland and P.T. Farrell (eds.) The Handbook of International School Psychology. London: Sage Publications.

Saldana, J. (2009). *'The Coding Manual for Qualitative Researchers'.* London: Sage Publications Ltd.

Sammons, A. (2014) '*Psychodynamic approach: the basics'*. [On-line] Available at: http://www.psychlotron.or.uk/newResources/approaches/As_AQB_PsychodynamicBasics.pdf

Sammons, A. (2014) *'The social learning approach: the basic'.* [On-line] Available at: http://wwww.psychlotron.org.uk/newResources/approaches/As_AQB_approaches_SLTBasics.pdf

Sammons, P. and Bakkum, L. (2012) *'Thinking about research and research quality in your academic work'.* Presentation for the Annual Oxford-Cambridge Exchange. [On-line] Available at: http://www.education.ox.ac.uk/wordpress/wp-content/uploads/2012/07/Oxbridge-Exchange-ppp-SAMMONS-BAKKUMr.-25-April-2012-WITH-MM-Final.pptx

Sattler, J. M. (1992). '*Assessment of Children (Third Edition)'.* San Diego: Jerome M. Sattler Publisher Inc.

Scott-Jones, D. (2001). 'Recruitment of research participants', in B.D. Sales and S. Folkman (eds.) *Ethics in Research with Human Participants.* Washington: American Psychological Association.

Shapiro, E.S. and Heick, P. (2004). 'School psychologist assessment practices in the evaluation of students referred for social/behavioral/emotional problems'. *Psychology in the Schools,* 41(5), 2004.

Shapiro, E.S. and Lentz Jr., F.E. (1985) 'A survey of school psychologists' use of behaviour modification procedures'. *Journal of School Psychology,* 23, 327-336.

Sieber, J.E. (2001). 'Planning research: basic ethical decision-making', in B.D. Sales and S. Folkman (eds.) *Ethics in Research with Human Participants.* Washington: American Psychological Association.

Sjostrom, B. and Dahlgren, L.O. (2002) 'Applying phenomenography in nursing research'. *Journal of Advanced Nursing,* 40 (3), 339-345.

Spratt, C., Walker, R. and Robinson, B. (2004). '*Mixed Research Methods'*. London: Sage Publications.

Sroufe, A. L. (1997). Psychopathology as an outcome of development'. *Development and Psychopathology,* 9, 251-268.

Sroufe, A. L. (1990). 'Considering normal and abnormal together: the essence of developmental psychopathology'. *Development and Psychopathology,* 2 (3), 335-347.

Teddlie, C. and Tashakkori, A. (2003) 'Major issues and controversies in the use of mixed methods in the social and behavioural sciences, in C. Teddlie and A. Tashakkori (eds.) *Handbook of Mixed Methods in the Social and Behavioural Sciences.* London: Sage.

Teddlie, C. and Tashakkori, A. (2009). *'Foundations of Mixed Methods Research: Integrating Quantitative and Qualitative Approaches in the Social and Behavioral Sciences'.* London: Sage Publications Inc.

Teddlie, C. and Yu, F. (2007). 'Mixed methods sampling: a typology with examples'. *Journal of Mixed Methods Research,* 1, 77-100.

Tesluk, P.E. and Jacobs, R.R. (1998). 'Toward an integrated model of work experience'. *Personnel Psychology,* 51, 321-355.

Trochim, W.M.K. (2006). *Non-Probability Sampling'.* [Online] Available at: http://www.socialresearchmethods.net/kb/sampnon.php.

Upton, G. and Cooper, P. (1990). 'A new perspective on behaviour problems in schools: the ecosystemic approach'. *Maladjustment and Therapeutic Education,* 8 (1), 3-18.

Waddell, C. Lipman, E. and Offord, D. (1999). 'Conduct disorder: practice parameters for assessment, treatment and prevention'. *Canadian Journal of Psychiatry,* 44 (8), 35-40.

Webster, A. and Hoyle, E. (2000). 'The "new professionalism" and the future of educational psychology', *Educational and Child Psychology,* 17 (2), 93-104.

Wenar, C. and Kerig, P. (2005). *'Developmental Psychopathology: From Infancy to Adolescence '(Fifth Edition).* London: McGraw Hill.

Winzer, M. (1990). *'Children with Exceptionalities: A Canadian Perspective' (Second Edition).* Scarborough: Prentice-Hall Canada Inc.

Winzer, M. (2007) '*Children with exceptionalities in Canadian classrooms (Eighth Edition)'.* [On-line] Available at: http://wpspearson.ca/ca_ph_winzer_children_8/66/16945/4338062.cw/index.html

Wodrich, D.L., Tarbox, J., Balles, J. and Gorin, J. (2010). 'A medical diagnostic consultation concerning mental retardation: an analogue study of school psychologists' attitudes'. *Psychology in the Schools*, 47(3), 246-256.

Woods, K. and Farrell, P. (2006). *'Approaches to psychological assessment by educational psychologists in England and Wales'.* School Psychology International, 27(4) 387-404.

World Health Organization (WHO) 2014. *'Mental health'.* [On-line] Available at: http://www.who.int/mental_health/maternal-child/en/

World Health Organization (WHO) (1992). '*International classification of diseases'*. (10th ed.). Geneva: World Health Organization.

Yin, R.K. (2006). 'Mixed Methods Research: are the methods genuinely integrated or merely parallel?' *Research in the Schools,* 15 (1), 41-47.

Young Minds in Schools (2012). *'Psychological perspectives on behaviour'.* [On-line] Available at: http://youngmindsinschools.org.uk/sen/behaviour .

Ysseldyke, J.E. (1978). 'Who's calling the plays in school psychology?' *Psychology in the Schools*, 15 (3), 373-378.

Appendices

Appendix A - Pilot Work for Self-Administered Postal Questionnaire and Semi-Structured Interview Schedule
Pilot Work: Self-Administered Postal Questionnaire

One of the main functions of conducting a pilot study is to "increase the predictability of the questionnaire" (Cohen et al., 2003, p.260). As Oppenheim (1992) indicated, every aspect of a questionnaire must be tried out in advance to ensure that it is functioning as it is intended to function. Piloting the questionnaire can provided useful feedback, information and guidance with respect to the:

a) instructions and layout of the questionnaire,
b) clarity of questions,
c) reduction of ambiguity,
d) ease or difficulty of questions,
e) sensitivity and general appropriateness of the questions,
f) elimination of redundancies, as well as
g) Information about the estimated completion time and length of the questionnaire **(**Cohen et al., 2003; De Vaus, 2004; Oppenheim, 1992; Robson, 2004),

According to Oppenheim (1992, p.47), "questionnaires do no emerge fully-fledged" but rather "they have to be created or adapted, fashioned and developed to maturity". Hence, it was expected that engaging in the pilot process would certainly facilitate and improve confidence in the postal questionnaire as an effective research method for this thesis.

A pilot study of the postal questionnaire was completed with a group of five Ontario school psychologists with similar academic and professional backgrounds as those in the target population of this study. While comments were generally positive, a few changes were made including the placement of the option of "Other" (which was missing) in question number three, and providing the full name next to the acronym DSM-V and ICD-10 in question number four (a). Completion time for the questionnaire was approximately fifteen minutes. This was considered by the participants to be reasonable. Overall, the format and design of the questionnaire was described as clear, concise, and user friendly, with a good mix of rating scales, fact gathering questions, and anecdotal items.

Pilot Work: Interview Schedule

According to Robson (2004), Brown and Dowling (2003), Cohen et al., (2003) and Oppenheim (1992), whichever research method is adopted it is vital that a pilot study be carried out to offset any problems with the research tool prior to engaging in the main research study. Hence, as Robson (2004), Brown and Dowling (2003) and Cohen et al., (2003) indicated, piloting the semi-structured interview questions for the present research study helped to ensure that:

a) the questions were clear and concise,

b) the content of the questions accurately addressed the key issues that the researcher wished to explore,

c) redundancy and ambiguity were eliminated,

d) the questions followed a logical order,

e) the questions were appropriate, and

f) the questions allowed for sufficient elaboration by the participant

g) the timing of the interview was well-paced and is remains as much as possible within a given and appropriate time frame

The semi-structured interview guide/outline for this study was piloted with two Ontario school psychologists. One psychologist was working in a psychological services department with an Ontario school board. The other also worked in an Ontario school board and had a private practice as well. Following the pilot, there were no changes made to the interview schedule. This was because the pilot participants indicated that the questions were clear and understandable and in a logical sequence. They also indicated that the time given to respond to each question and the length of the interview was appropriate and reasonable. Their responses to each question also provided a positive indication that there was a consistent level of participant comprehension without having to repeat or rephrase the initial questions. Hence, the pilot interview guideline/schedule remained in its original form for use in the main study.

Appendix B: Self-Administered Postal Questionnaire

This is a survey for professionals who provide psychological services for school-aged children. The focus of the survey is the assessment of children referred due to behaviour problems at school. All information collected will remain confidential and your anonymity is assured. Your participation is greatly appreciated.

1. Background Information - Please respond by placing a check (✓).

Level of Training

Masters ___ Doctoral___ Other (Please indicate) _____

Experience

0-5 years __ 6-10 years ___ 11-15 years____ More than 15 years ___

I am registered with the College of Psychologists of Ontario

Yes___ No___

2. (a) Many different methods or tools can be used when conducting a psychological assessment of a child referred due to behaviour problems. From the list below, please place a check (✓) to indicate how frequently you use any of the following methods.

Method/Tool	Always	Often	Sometimes	Never
Standardized Cognitive (Intelligence) Test				
Standardized Academic Achievement Test				
Observation in the classroom				
Observation in the school yard				
Parent Interview/ Developmental History				
Teacher Interview				
Student Interview				
Standardized Teacher Checklist/Questionnaire				
Standardized Parent Checklist/Questionnaire				
Standardized Student Checklist/Questionnaire				
Review of the Ontario Student Record (OSR)				
Review of Medical Reports				
Review of Previous Psychological Reports				
Other (Please Indicate)				

2. (b) Please indicate the name of the tests, questionnaires and checklists that you <u>regularly use</u> when conducting a psychological assessment of a child referred due to behaviour problems. Please place a check (✓) in 'Not Applicable' if you do not use a particular type of test or questionnaire..

Types of Tests/Questionnaires/Checklists	Names of Tests/Questionnaires/Checklists <u>Regularly Used</u> You may use abbreviations For Example: WISC IV	Not Applicable
Standardized Cognitive (Intelligence) Test		
Standardized Academic Achievement Test		
Standardized Teacher Checklist/Questionnaire		
Standardized Parent Checklist/Questionnaire		
Standardized Student Checklist/Questionnaire		
Other (Please Indicate)		

3. Please rate the importance of using each method below when conducting a psychological assessment of a child referred with behaviour problems. Please indicate your response by placing a check (✓) in the box.

Methods	Not Important	Somewhat Important	Important	Very Important
Standardized Cognitive (Intelligence) Test				
Standardized Academic Achievement Test				
Observation in classroom				
Observation in the school yard				
Parent Interview/ Developmental History				
Teacher Interview				
Student Interview				
Standardized Teacher Checklist/Questionnaire				
Standardized Parent Checklist/Questionnaire				
Standardized Student Checklist/Questionnaire				
Review of Ontario Student Record (OSR)				
Review of Medical Reports				
Review of Previous Psychological Reports				
Other (Please Indicate)				

4. (a) Have you ever utilized either of the following sets of diagnostic criteria during your assessment of a child referred with behaviour problems?

DSM-V (Diagnostic and Statistical Manual of Mental Disorders- V) Yes___ No___
ICD 10 (International Classification of Diseases-10) Yes___ No___

4. (b) Please indicate any other types of criteria you have utilized during your assessments of children referred with behaviour problems.

_____
_____
_____
_____
_____
_____

5. (a) Have the results of a psychological assessment you have conducted ever lead to a diagnosis of a behaviour disorder or other childhood disorder?

Yes____ No___

5. (b) If your answer to 5 (a) was 'Yes', please indicate what types of diagnoses have resulted from your psychological assessments of children referred with behaviour problems. For example: Attention Deficit Hyperactivity Disorder, Conduct Disorder, Oppositional Defiant Disorder, Depression, etc.

_____
_____
_____
_____
_____
_____

5. (c) If your answer to 5 (a) is yes, please indicate who made the diagnosis? Please place a check (✓) next to all responses that apply. If your answer to 5 (a) was 'No' please check (✓) Not Applicable.

Self (if you are registered) ___
Supervising psychologist/Psychological Associate (if you are not registered) ___
Another children's mental health professional (For example, child psychiatrist, paediatrician, etc.) ___ Please name the type of professional(s)_____
Not Applicable ___

6. Please indicate how often any of the following options are offered following a psychological assessment of a child referred with behaviour problems. Please indicate with a (✓).

Options	Never	Sometimes	Often	Always
Recommendations for school staff				
Recommendations for parents				
Referral to an external professional (For Example, child psychiatrist etc.)				
Direct Intervention by You (for example, Counselling, Cognitive Behavioural Therapy, etc.)				
Other (Please Indicate)				

7. (a) There are many perspectives that influence the description, assessment, formulation, intervention, and evaluation of children's behaviour and behaviour problems. Some are listed below. Please indicate <u>to what degree</u> each of these theories/perspectives of behaviour influences your views. Please indicate your response with a check (✓).

Theories/Perspectives of Behaviour	High	Moderate	Low	Not at All
Biological				
Behavioural				
Cognitive-Behavioural				
Social Learning				
Psychodynamic				
Humanistic				
Ecological				
Other (Please Indicate)				

7 (b). Please briefly describe what you feel are the most important factors to consider when assessing children referred due to behaviour problems.

_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____

Thank you for completing this survey. Your participation is greatly appreciated.

Appendix C: Semi- Structured Interview Questions – Guide/Outline

I would like to thank you very much for participating in this interview today. I would like to remind you that your participation in this process is completely voluntary and that your identity will remain completely anonymous. This interview will be recorded only to ensure an accurate record of response. If for any reason you decide at any time during this interview that you no longer wish to participate, please let me know and the interview will be terminated. Do you have any questions?

Professional Background

1. What is your professional title (psychologist, psychological associate, psychometrist)?
2. What is your level of training? (Doctorate, Masters, other?)
3. Are you registered with the College of Psychologists of Ontario? How long?
4. Do you have an area(s) of specialization?
5. How long have you been a school psychologist/psychological associate/psychometrist/ etc.?
6. What is the age range of children you typically assess?

Methods of Assessment

7. How would you proceed to assess the boy in the first scenario? What methods would you use? How about for the girl in the second scenario?
8. How do you determine which methods you will use?
9. What methods do you find most useful? Please explain.
10. Are there any methods which are not very useful? Please explain.
11. Is there any method you would like to use but do not use? Why?
12. Do you use the same set or battery of tests or methods to assess children/adolescents referred with behavioural difficulties? Please explain.

Diagnosis (Types –Mild to Severe-Disordered)

13. When a diagnosis of a behaviour disorder or other child disorder seems warranted, do you make the diagnosis or do you refer on to other professionals? If you do refer them on to other professionals…To Whom? Why?
    Diagnostic Process - Tell me more about that.

Recommendations and Interventions

14. Following an assessment, what types of recommendations and/or interventions (either direct or indirect) do you provide? Tell me more about that.

15. Is there anything that you would like to do with regards to intervention but do not do? Why?

Theories/Perspectives of Behaviour

16. What model(s) or perspective(s) of behaviour do you feel best describes or guides your assessment of children's behaviour difficulties? Please explain.

Other

17. What do you feel has best prepared you to assess children referred with behaviour difficulties? How?

Debriefing: Thank you very much for participating in this interview. Your participation is greatly appreciated. Do you have any questions or concerns about the interview that I can address for you at this time?

Appendix D -Vignettes

Scenario 1

A 9 year old boy is referred to psychological services due to ongoing behaviour problems at school. He has temper tantrums, talks back to the teacher, and is often disobedient to other staff at the school. Frequent telephone calls have been made to his mother regarding ongoing problem behaviour at school, from Kindergarten to the present. According to his teacher, there has been a recent escalation in these behaviour problems. He is frequently sent to the principal's office for being disruptive in the classroom, talking back to the teacher, and getting into physical fights with other children in the classroom and school yard. He seems to have few friends and tends to play alone in the classroom and outside. Recently, he was found destroying books, rulers and other school resources, as well as, kicking and knocking over tables and chairs in the hallway.

Reference: Vignette adapted from Lippincott, Williams & Wilkins
Journal of Developmental & Behavioral Pediatrics, 2010, Vol. 31, No.3

Scenario 2

A 14 year old girl is referred to psychological services due to ongoing behaviour problems at school. She was suspended from school 3 times for arguing aggressively with teachers. When asked, she admits that she loses her temper easily. However, she blames other students and her teachers for being treated "unfairly". Her mother explains that she has always had problems both at home and at school, and that she often seems to go out of her way to annoy friends and family members. School has been a consistent source of stress for her and trying to get her to complete her homework has resulted in many arguments. She recently destroyed her brother's homework during one of the arguments.

Reference: Vignette adapted from Consultant 360 for Pediatricians 'Disruptive Behavior Disorders: What's Normal-What's Not? Volume 5, Issue 1, January 2006
[On-line] Available at: www.pediatricsconsultant360.com/content/disruptive-behaviour-dorders-what's-normat-what's-not

Appendix E – Example of Coding Framework for Semi-Structured Interviews –Using Narrative from Two Interviews

Interview Participant	Answers Transcribed from Respondents Area: Theoretical Factors	Reduction of answer to identify central parts/ideas	Preliminary Categories from answers	Naming of the Category (Main Substance)
Interviewee One	well, I feel like I take a balanced approach of looking at the factors that have to do with the child being assessed, and factors outside of the child that may be influencing the behaviour problems…..I work under the premise that there is a combination of factors that are influencing and being affected by the behaviour and trying to figure out how to address them…. If the child is quite bright and is successful in his learning but is acting out….that is very different from a child who is struggling with the curriculum and is frustrated with his schoolwork and acting out (SP4)	-balanced approach -looking at factors with the child -look at factors outside -combination of factors -how to address them -acting out -different	-multiple causes of behaviour behaviour -multiple approaches to assessment -multiple approaches to intervention	**Multiple Orientations**
Interviewee Two	... Team based and technically eclectic….I think that that you need a bit of both I mean you need to work to make sure that you're not just looking at scores, you're looking a people to get their input and that you have technical experience with scoring….like there's a human and a technical side and you need to have the ability to understand various needs and to be responsive to different things that don't necessarily sit because of the test that was administered….. you have to look at the kid behind it" (SP1)	-technically eclectic -looking at people -not just looking at scores -human side -technical side -various needs -responsive to different things		

Appendix F : Ethical Issues

As Robson (2004) has explained, it is at the very earliest stages of preparing to conduct research that serious consideration and thought must be given to the ethical aspects of the proposed enquiry. The following is an explanation how ethical matters were addressed in the present study.

To begin, the purpose of the research was truthfully and transparently articulated to the participants via the letters of invitation (in both postal questionnaire and semi-structured interviews and during the instructions prior to beginning the interviews. Verification of the authenticity and legitimacy of the study was willingly provided by presenting letters of confirmation from the university (that is, approval letters for conducting the study by the EdD and Ethical Committees) upon request.

The issue of informed consent and/or the right to refuse/withdraw from participating in Part One of the research study was addressed by the very nature of the research tool that was applied. Via the use of a letter of invitation which explained the study, and an anonymous self-administered postal questionnaire, the participants were informed about the purpose of the study and that they had the right to choose to participate or not, by deciding whether they would complete and return the questionnaire. It is also worth noting at this juncture that the letters requesting the Chief Psychologists to distribute the questionnaire packages to their staff, explicitly stated that they were 'only to distribute' the packages and that they not were not to encourage or force participation in the study, as it was completely voluntary. In Part Two of the study, informed consent is explained in the letter of invitation and prior to the interview. Participants are reminded at the interview of the fact that: the discussion will be recorded only for the purpose of achieving an accurate record of response, that their identity will remain anonymous, that their participation in the study is completely voluntary and that it is their right to refuse to participate and/or withdraw from the study at any time during the interview. They are asked if they require clarification, or if they have any questions. Finally they are asked if they still wish to proceed and if agreed, the interview begins.

As Scott-Jones (2000, p. 27) indicates "voluntary participation…is a hallmark of ethical research". For Part One of the study, the fact that participation in this survey is purely voluntary is explicitly indicated in the letter of invitation and is further demonstrated by providing a self-addressed stamped envelope for potential participants to return at their convenience, only if they wish. It was also explained that the pen included in the package is a small token of appreciation for taking time from their busy schedules and professional obligations to complete the survey. It was determined by the researcher that the pen is an appropriate token of thanks. That is, the token (pen), is of a magnitude which is considered acceptable, proper, fitting and suitable, given the requirements of the task. Again, in Part Two of the study, participants are reminded at the interview of the voluntary nature of the study and of their right to refuse to participate and/or withdraw from the study at any point during the interview (at which time the interview would be officially terminated).

Anonymity is assured within the context of the present research study as participants will not be required to identify themselves in any way other than to confirm their professional status (that is, school psychologist), their level of training and their years of professional experience. In Part One of the study, there is no personal information requested on the questionnaire and there is nothing on it or the return envelope that would reveal where the form had originated from. Their anonymity is clearly and explicitly explained in the letter of invitation sent to each of the potential participants. As indicated earlier, in Part Two of the study, participants' anonymity is assured during the interview with no personal or employment information being revealed.

It is worth noting that as this study is supervised research at the Institute, access to the data will be restricted to the researcher and members of the research team (for example, my supervisor). The researcher will retain all the records in a locked file that is only accessible to the researcher and the relevant parties of the research team. All participant data (questionnaires, tape-recorded interviews), including email and postal correspondences, are retained for a required length of time, and will then be destroyed to ensure anonymity is maintained once all obligations of the research process have been met.

It is also important to emphasise at this juncture that "beneficence requires that researchers minimise possible harms and maximise possible benefits from research" (Scott-Jones, 2000, p. 27). The risk of participating in the present study has been minimised through the use of anonymous survey research. There is no reason to expect that the participants would experience stress or be subjected to any form of disrespect or harm by completing the questionnaire or semi-structured interviews. The participants invited to respond to the questionnaire and the interviews are drawn from an appropriate population consisting of a specific body of professionals (that is, school psychologists), that bring to the task a specialised knowledge and familiarity with respect to children's behaviour problems. Hence, the school psychologists have the required professional and academic qualifications in order to be able to confidently engage in the task.

Questions on the questionnaire and the semi-structured interview schedule are appropriate and are related strictly to the stated research task. There are no questions that aimed to deceive, trick or force participants to unwillingly or unknowingly disclose information that would be personally and/or professionally harmful. Further, at the end of the semi-structured interviews, the participants were debriefed and are asked if they have any questions or concerns about the interview. They are encouraged to freely and openly discuss any problems or worries that may arise so that are comfortable and confident in the interview process. Hence the researcher does not anticipate that any of the participants would come to risk or harm by responding to any of the questions within the context of either of the research protocols (postal questionnaire or semi-structured interviews).

According to the Code of Ethics of the International School Psychology Association (Oakland et al., 1997) school psychologists should engage in research experiences that "enrich and benefit in some way the individuals involved in the research activity. As Ontario school psychologists are the participants in this research, it is anticipated they will benefit from participating in this research activity as it will provide a catalyst for reflecting upon their practice as individual professionals and within the context of the profession as a whole.

By participating in this research study, the participants are reflecting upon their roles as professionals in the assessment of children's behaviour problems. This encourages professional self-awareness and evaluation of their professional work. Participants are provided with a summary of the results of the research study, upon request. It is through conducting, participating in, and reflecting upon research, that individual practitioners are encouraged to grow as professionals and continue to move the profession forward as a whole. Professional reflection, awareness, and development through the research process aims to benefit the individual practitioner (school psychologist), the profession, the communities served (that is, children, parents, teachers, and schools), as well as, contributing to the field of school psychology.

Appendix G: Statistical Analyses Tables

Table 1

Level of Training Compared with Methods (Frequency)

Variable	Doctoral Level or Masters Level/Equivalent Fisher's Exact Test	p
Standardised Cognitive (Intelligence)Test	n=39	1.00
Standardised Academic Achievement Test	n=38	1.00
Observation in the Classroom	n=39	.528
Observation in the School Yard	n=39	.497
Parent Interview/Developmental History	n=39	.402
Teacher Interview	n=39	.052
Student Interview	n=39	.438
Standardised Teacher Checklist/Questionnaire	n=39	1.00
Standardised Parent Checklist/Questionnaire	n=39	1.00
Standardised Student Checklist/Questionnaire	n=39	.528
Review of the Ontario Student Record (OSR)	n=39	.363
Review of Medical Reports	n=38	.061
Review of Previous Psychological Reports	n=38	.499

Table 2

Level of Training Compared with Methods (Importance)

Variable	Doctoral Level or Masters Level/Equivalent Mann-Whitney U	p
Standardised Cognitive (Intelligence)Test	170	.827
Standardised Academic Achievement Test	160	.601
Observation in the Classroom	167	.553
Observation in the School Yard	186	.976
Parent Interview/Developmental History	170	.483
Teacher Interview	166	.520
Student Interview	176	.930
Standardised Teacher Checklist/Questionnaire	162	.414
Standardised Parent Checklist/Questionnaire	145	.174
Standardised Student Checklist/Questionnaire	177	.975
Review of the Ontario Student Record OSR)	150	.364
Review of Medical Reports	131	.068
Review of Previous Psychological Reports	172	.595

Table 3

Level of Training Compared with Interventions

	Doctoral Level or Masters Level/Equivalent	
Variable	Fisher's Exact Test	p
Recommendations for School staff	n=39	1.00
Recommendations for parents	n=39	1.00
Direct Intervention By You	n=39	.355
Referral to an External Professional	n=39	.730

Table 4

Level of Training Compared with Theories of Behaviour

	Doctoral Level or Masters Level/Equivalent	
Variable	Fisher's Exact Test	p
Biological	n=36	.376
Behavioural	n=36	1.00
Cognitive-Behavioural	n=38	1.00
Social Learning	n=34	.555
Psychodynamic	n=36	.465
Humanistic	n=34	.724
Ecological	n=35	.166

Table 5

Level of Training Compared with Theories of Behaviour

	Doctoral Level or Masters Level/Equivalent	
Variable	Mann-Whitney U	p
Biological	127	.284
Behavioural	141	.495
Cognitive-Behavioural	172	.825
Social Learning	126	.583
Psychodynamic	131	.354
Humanistic	134	.757
Ecological	101	.105

Table 6

Registration Status Compared with Methods (Frequency)

	Registered or Not Registered	
Variable	Fisher's Exact Test	p
Observation in the Classroom	n=39	.276
Standardised Cognitive (Intelligence)Test	n=39	.714
Standardised Academic Achievement Test	n=38	.473
Observation in the School Yard	n=39	.290
Parent Interview/Developmental History	n=39	.253
Teacher Interview	n=39	.225
Student Interview	n=39	.388
Standardised Teacher Checklist/Questionnaire	n=39	1.00
Standardised Parent Checklist/Questionnaire	n=39	1.00
Standardised Student Checklist/Questionnaire	n=39	.276
Review of the Ontario Student Record OSR)	n=39	.149
Review of Medical Reports	n=38	.643
Review of Previous Psychological Reports	n=38	.538

Table 7

Registration Status Compared with Methods (Importance)

Variable	Registered or Not Registered Fisher's Exact Test	p
Standardised Cognitive (Intelligence)Test	n=38	.538
Standardised Academic Achievement Test	n=38	.577
Observation in the Classroom	n=39	.276
Observation in the School Yard	n=39	.169
Parent Interview/Developmental History	n=39	1.00
Teacher Interview	n=39	1.00
Student Interview	n=38	.538
Standardised Teacher Checklist/Questionnaire	n=39	1.00
Standardised Parent Checklist/Questionnaire	n=39	1.00
Standardised Student Checklist/Questionnaire	n=38	1.00
Review of the Ontario Student Record	n=38	.643
Review of Medical Reports	n=39	.538
Review of Previous Psychological Reports	n=39	.486

Table 8

Registration Status Compared with Methods (Importance)

Variable	Registered or Not Registered Mann-Whitney U	p
Standardised Cognitive (Intelligence)Test	144	.643
Standardised Academic Achievement Test	154	.945
Observation in the Classroom	162	.835
Observation in the School Yard	137	.319
Parent Interview/Developmental History	138	.173
Teacher Interview	153	.609
Student Interview	157	.839
Standardised Teacher Checklist/Questionnaire	147	.460
Standardised Parent Checklist/Questionnaire	128	.162
Standardised Student Checklist/Questionnaire	156	.842
Review of the Ontario Student Record OSR)	131	.300
Review of Medical Reports	155	.632
Review of Previous Psychological Reports	149	.468

Table 9

Registration Status Compared with Interventions

	Registered or Not Registered	
Variable	Fisher's Exact Test	p
Recommendations for school staff	n=39	.538
Recommendations for parents	n=39	.689
Referral to an External Professional	n=39	.269
Direct Intervention By You	n=38	.643

Table 10

Registration Status Compared with Theories of Behaviour

	Registered or Not Registered	
Variable	Fisher's Exact Test	p
Biological	n=36	1.00
Behavioural	n=36	1.00
Cognitive-Behavioural	n=38	.342
Social Learning	n=34	.535
Psychodynamic	n=36	.124
Humanistic	n=34	1.00
Ecological	n=35	.476

Table 11

Registration Status Compared with Theories of Behaviour

	Registered or Not Registered	
Variable	Mann-Whitney U	p
Biological	108	.276
Behavioural	134	.712
Cognitive-Behavioural	129	.232
Social Learning	104	.353
Psychodynamic	97	.089
Humanistic	131	.968
Ecological	132	.825

Table 12

Years of Professional Experience Compared with Methods (Importance), Diagnostic Practices, Interventions and Theories of Behaviour

	Years of Professional Experience	
Variable	Mann-Whitney U	p
Methods of Assessment (Importance)		
Standardised Cognitive (Intelligence)Test	133	.409
Standardised Academic Achievement Test	140	.616
Observation in the Classroom	152	.666
Observation in the School Yard	133	.295
Parent Interview/Developmental History	156	.664
Teacher Interview	129	.217
Student Interview	136	.480
Teacher Checklist/Questionnaire	144	.454
Parent Checklist/Questionnaire	161	.901
Student Checklist/Questionnaire	109	.113
Review of the Ontario Student Record OSR)	130	.348
Review of Medical Reports	143	.444
Review of Previous Psychological Reports	156	.740
Diagnostic Practices		
Use DSM-V	161	.782
Use ICD-10	102	1.00
Diagnosis of Behaviour-related or other Disorder	154	.226
Diagnosis Made By Self-if Registered	125	.132
Diagnosis Made by Supervising Psychologist-if Not Registered	136	.266
Diagnosis Made By Another Professional	156	.746
Interventions		
Recommendations for school staff	161	.794
Recommendations for parents	158	.787
Referral to an External Professional	162	.930
Direct Intervention By You	162	.919
Theories of Behaviour		
Biological	137	.649
Behavioural	137	.630
Cognitive-Behavioural	148	.536
Social Learning	116	.443
Psychodynamic	112	.170
Humanistic	106	.268
Ecological	104	.163

Table 13

Years of Professional Experience Compared with Methods (Frequency), Methods (Importance),Diagnostic Practices, Interventions and Theories of Behaviour

	Years of Professional Experience	
Variable	Fisher's Exact Test	p
Methods of Assessment (Frequency)		
Standardised Cognitive (Intelligence)Test	n=37	.466
Standardised Academic Achievement Test	n=36	.292
Observation in the Classroom	n=37	.315
Observation in the School Yard	n=37	.073
Parent Interview/Developmental History	n=37	1.00
Teacher Interview	n=37	.438
Student Interview	n=37	1.00
Teacher Checklist/Questionnaire	n=37	.405
Parent Checklist/Questionnaire	n=37	.554
Student Checklist/Questionnaire	n=37	.184
Review of the Ontario Student Record (OSR)	n=37	.629
Review of Medical Reports	n=36	.376
Review of Previous Psychological Reports	n=36	.219
Methods of Assessment (Importance)		
Standardised Cognitive (Intelligence)Test	n=36	1.00
Standardised Academic Achievement Test	n=36	.634
Observation in the Classroom	n=37	1.00
Observation in the School Yard	n=37	.729
Parent Interview/Developmental History	n=37	1.00
Teacher Interview	n=37	.670
Student Interview	n=36	.511
Teacher Checklist/Questionnaire	n=37	1.00
Parent Checklist/Questionnaire	n=37	1.00
Student Checklist/Questionnaire	n=36	.441
Review of the Ontario Student Record (OSR)	n=36	.677
Review of Medical Reports	n=37	.554
Review of Previous Psychological Reports	n=37	1.00
Diagnostic Practices		
Use DSM-V	n=37	1.00
Use ICD-10*	n=29	*
Diagnosis of Behaviour-related or other Disorder	n=37	.405
Diagnosis Made By Self-if Registered	n=37	.164
Diagnosis Made by Supervising Psychologist-if Not Registered	n=37	.295
Diagnosis Made By Another Professional	n=37	1.00
Interventions		
Recommendations for school staff	n=37	1.00
Recommendations for parents	n=37	1.00
Referral to an External Professional	n=37	1.00
Direct Intervention By You	n=37	.629
Theories//Perspectives of Behaviour		
Biological	n=35	1.00
Behavioural	n=35	1.00
Cognitive-Behavioural	n=37	.734
Social Learning	n=33	.579
Psychodynamic	n=35	.467
Humanistic	n=33	.716
Ecological	n=34	.489

*no statistics calculated as one variable is a constant

Table 14

Methods (Frequency) Compared with Diagnostic Practices

(Fisher's Exact Tests) Variable	DSM-V	p	ICD-10	p	Diagnosis of Disorder-Psych. Report	p	Diag. By Self – if Registered	p	Diag. By Supervising Psych. –if Not Reg.	p	Diag. By Other Mental Health Prof.	p
Standardised Cognitive (Intelligence)Test	n=39	1.00	n=31	.290	n=39	1.00	n=39	.714	n=39	.719	n=39	.082
Standardised Academic Achievement Test	n=38	.538	n=30	.333	n=38	1.00	n=38	.473	n=38	.486	**n=38**	**.042**
Observation in the Classroom	n=39	1.00	n=31	1.00	n=39	1.00	n=39	.087	**n=39**	**.035**	n=39	.528
Observation in the School Yard	n=39	.544	n=31	1.00	n=39	1.00	n=39	.290	n=39	.163	**n=39**	**.039**
Parent Interview/Developmental History	**n=39**	**.004**	n=31	1.00	n=39	1.00	n=39	.253	n=39	.219	n=39	1.00
Teacher Interview	n=39	1.00	n=31	1.00	n=39	1.00	n=39	.225	n=39	.228	n=39	.251
Student Interview	n=39	.331	n=31	1.00	n=39	1.00	n=39	.388	n=39	.403	n=39	.438
Standardised Teacher Checklist/Questionnaire	n=39	1.00	n=31	1.00	n=39	1.00	n=39	1.00	n=39	1.00	n=39	1.00
Standardised Parent Checklist/Questionnaire	n=39	.150	n=31	1.00	n=39	1.00	n=39	1.00	n=39	1.00	n=39	1.00
Standardised Student Checklist /Questionnaire	n=39	.206	n=31	1.00	n=39	.462	n=39	.734	n=39	.322	n=39	.748
Review of the Ontario Student Record (OSR)	n=39	1.00	n=31	1.00	n= 39	1.00	n=39	.149	n=39	.299	n=39	.363
Review of Medical Reports	n=38	1.00	n=30	1.00	n=38	1.00	n=38	.643	n=38	1.00	n=38	1.00
Review of Previous Psychological Reports	n=38	1.00	n=30	1.00	n=38	1.00	n=38	.538	n=38	1.00	n=38	.499

*Significant statistics found in Bold Text

Table 15

Methods (Frequency) Compared with Interventions

(Fisher's Exact Tests)	Interventions							
Variable	Rec. for School Staff	p	Rec. for Parents	p	Ref. to External Professional	p	Direct Intervention By You	p
Standardised Cognitive (Intelligence)Test	n=39	1.00	n=39	.693	n=39	.455	n=38	.134
Standardised Academic Achievement Test	n=38	1.00	n=38	1.00	n=38	.457	n=37	.304
Observation in the Classroom	n=39	1.00	n=39	.706	n=39	.742	n=38	1.00
Observation in the School Yard	n=39	.538	n=39	1.00	n=39	.714	n=38	.643
Parent Interview/Developmental History	n=39	1.00	n=39	.127	n=39	1.00	n=38	1.00
Teacher Interview	n=39	.127	n=39	.085	n=39	1.00	n=38	.574
Student Interview	n=39	1.00	n=39	1.00	n=39	1.00	n=38	1.00
Standardised Teacher Checklist/Questionnaire	n=39	1.00	n=39	1.00	n=39	.308	n=38	1.00
Standardised Parent Checklist/Questionnaire	n=39	1.00	n=39	.127	n=39	.219	n=39	1.00
Standardised Student Checklist/Questionnaire	n=39	.586	n=39	.706	n=39	1.00	n=38	.653
Review of the Ontario Student Record (OSR)	**n=39**	**.038**	n=39	.318	**n=39**	**.025**	n=38	.120
Review of Medical Reports	n=38	.353	n=38	.563	n=38	1.00	n=37	.126
Review of Previous Psychological Reports	n=38	1.00	n=38	1.00	n=38	1.00	n=37	1.00

*Significant statistics found in Bold Text

Table 16

Methods (Frequency) Compared with Theories of Behaviour

(Fisher's Exact Tests)	Theories of Behaviour													
Variable	Bio.	p	Beh.	p	C-Beh.	p	Soc.L	p	Psy. D.	p	Hum.	p	Eco	p
Standardised Cognitive Test	n=36	.603	.n=36	.306	n=38	1.00	n=34	1.00	n=36	.439	n=34	.138	n=35	1.00
Academic Achievement Test	n=35	.640	n=35	.343	n=37	1.00	n=33	.521	n=35	.259	n=34	.265	n=34	1.00
Observation in the Classroom	n=36	1.00	n=36	.472	n=38	.474	n=34	1.00	n=36	1.00	n=34	.297	**n=35**	**.041**
Observation in the School Yard	n=36	1.00	n=36	.361	n=38	.342	n=34	.535	n=36	1.00	n=34	.292	n=35	.476
Parent Interview /Developmental History	n=36	.262	n=36	1.00	n=38	1.00	n=34	1.00	n=36	.524	n=34	.529	n=35	.202
Teacher Interview	n=36	1.00	n=36	1.00	n=38	1.00	n=34	.164	n=36	.223	n=34	1.00	n=35	.700
Student Interview	n=36	1.00	n=36	1.00	n=38	1.00	n=34	.453	n=36	.643	n=34	1.00	n=35	.666
Standardised Teacher Checklist/Questionnaire	n=36	1.00	n=36	1.00	n=38	1.00	n=34	.088	n=36	1.00	n=34	1.00	n=35	1.00
Standardised Parent Checklist/Questionnaire	n=36	.370	n=36	1.00	n=38	1.00	n=34	.249	n=36	1.00	n=34	.529	n=35	.582
Standardised Student Checklist/Questionnaire	n=36	.149	n=36	1.00	n=38	1.00	n=34	.555	n=36	.483	n=34	1.00	n=35	.740
Review of the Ontario Student Record (OSR)	n=36	1.00	n=36	1.00	n=38	1.00	**n=34**	**.05**	n=36	.295	n=34	.602	n=35	.642
Review of Medical Reports	n=35	.269	n=35	1.00	n=37	1.00	n=33	1.00	n=35	.610	n=33	.586	n=34	.648
Review Psychological Reports	n=35	.561	**n=35**	**.029**	n=37	1.00	n=33	1.00	n=35	.076	n=33	.333	n=34	.241

*Significant statistics found in Bold text

Table 17

Methods (Importance) Compared with Diagnostic Practices

(Fisher's Exact Tests)

Variable	DSM-IV	p	ICD-10	p	Diagnosis of Disorder-Psych. Report	p	Diag. By Self –if Registered	p	Diag. By Super. Psych. –if Not Reg.	p	Diag. By Other Child/ M.H. Prof.	p
Standardised Cognitive Test	n=38	1.00	n=30	1.00	n=38	1.00	n=38	.538	n=38	.501	n=38	1.00
Standardised Academic Achievement Test	n=36	1.00	n=30	1.00	n=38	1.00	n=38	.577	n=38	.564	n=38	.307
Observation in the Classroom	n=39	1.00	n=31	1.00	n=39	.282	n=39	.276	n=39	.122	n=39	1.00
Observation in the School Yard	n=39	1.00	n=31	1.00	n=39	.410	n=39	.169	n=39	.076	n=39	1.00
Parent Interview/Developmental History	n=39	1.00	n=31	1.00	n=39	1.00	n=39	1.00	n=39	1.00	n=39	1.00
Teacher Interview	n=39	1.00	n=31	1.00	n-39	.154	n=39	1.00	n=39	.645	n=39	1.00
Student Interview	n=38	1.00	n=30	1.00	n=38	1.00	n=38	.538	n=38	1.00	n=38	1.00
Teacher Checklist/Questionnaire	n=39	1.00	n=31	1.00	n=39	1.00	n=39	1.00	n=39	1.00	n=39	.436
Parent Checklist/Questionnaire	n=39	.101	n=31	1.00	n=39	1.00	n=39	1.00	n=39	.526	n=39	.184
Student Checklist/Questionnaire	n=38	.422	n=30	1.00	n=38	1.00	n=38	1.00	n=38	1.00	n=38	.703
Review of the Ontario Student Record	n=38	1.00	n=30	1.00	n=38	1.00	n=38	.643	n=38	.643	n=38	.672
Review of Medical Reports	n=39	1.00	n=31	1.00	n=39	1.00	n=39	.538	n=39	.539	n=39	.243
Review of Previous Psychological Reports	n=39	.526	n=31	1.00	n=39	1.00	n=39	.486	n=39	.455	n=39	.494

Table 18

Methods of Assessment (Importance) Compared with Interventions

(Fisher's Exact Tests)

Variable	Rec. for School Staff	p	Rec. for Parents	p	Ref. to External Professional	p	Direct Interv. By You	p
Standardised Cognitive (Intelligence)Test	n=38	1.00	n=38	1.00	n=38	1.00	n=37	1.00
Standardised Academic Achievement Test	n=38	1.00	n=38	1.00	n=38	.287	n=37	1.00
Observation in the Classroom	n=39	.187	n=39	.399	n=39	.262	n=38	.615
Observation in the School Yard	n=39	.061	n=39	.711	n=39	.174	n=38	1.00
Parent Interview/Developmental History	n=39	1.00	n=39	.231	n=39	1.00	n=38	1.00
Teacher Interview	n=39	.403	n=39	.607	n=39	1.00	n=38	1.00
Student Interview	n=38	1.00	n=38	1.00	n=38	1.00	n=37	.255
Standardised Teacher Checklist/Questionnaire	n=39	1.00	n=39	.231	n=39	1.00	n=38	1.00
Standardised Parent Checklist/Questionnaire	n=39	1.00	**n=39**	**.049**	n=39	.526	n=38	1.00
Standardised Student Checklist /Questionnaire	n=38	1.00	n=38	.174	n=38	1.00	n=37	.577
Review of the Ontario Student Record (OSR)	**n=38**	**.002**	n=38	1.00	**n=38**	**.047**	n=37	.177
Review of Medical Reports	n=39	1.00	n=39	.556	n=39	.219	n=38	1.00
Review of Previous Psychological Reports	n=39	1.00	n=39	1.00	n=39	1.00	n=38	1.00

*Significant statistics found in Bold Text

Table 19

Methods (Importance) Compared with Theories of Behaviour

	Theories													
(Fisher's Exact Tests)														
Variable	Bio.	p	Beh.	p	C-Beh.	p	Soc.L	p	Psy. D.	p	Hum.	p	Eco	p
Standardised Cognitive Test	n=35	1.00	n=35	1.00	n=37	1.00	n=33	1.00	n=35	1.00	n=33	.542	n=34	1.00
Academic Achievement Test	n=35	1.00	n=35	1.00	n=37	1.00	n=33	1.00	n=35	1.00	n=33	1.00	n=34	.591
Observation in the Classroom	n=36	1.00	n=36	1.00	n=38	1.00	n=34	.239	n=36	.439	n=34	1.00	n=35	.716
Observation in the School Yard	n=36	1.00	n=36	1.00	n=38	1.00	n=34	.571	n=36	.729	n=34	.717	n=35	.182
Parent Interview/Developmental History	n=36	1.00	n=36	1.00	n=38	1.00	n=34	1.00	n=36	1.00	n=34	1.00	n=35	.457
Teacher Interview	n=36	1.00	n=36	1.00	n=38	1.00	n=34	1.00	n=36	.343	n=34	1.00	n=35	.666
Student Interview	n=35	.269	n=35	1.00	n=37	1.00	n=34	1.00	n=35	1.00	n=34	1.00	n=34	1.00
Teacher Checklist/Questionnaire	n=36	1.00	n=36	1.00	n=38	1.00	n=34	.251	n=36	1.00	n=34	1.00	n=35	.457
Parent Checklist/Questionnaire	n=36	.262	n=36	1.00	n=38	1.00	n=34	1.00	n=36	.524	n=34	.529	n=35	.202
Student Checklist/Questionnaire	n=35	.586	n=35	1.00	n=37	.243	n=33	1.00	n=35	1.00	n=34	.687	n=34	.052
Ontario Student Record (OSR)	n=35	.561	n=35	1.00	n=37	1.00	n=33	.078	n=35	.146	n=33	1.00	n=34	.672
Review of Medical Reports	**n=36**	**.045**	n=36	1.00	n=38	1.00	n=34	.249	n=36	1.00	n=34	.279	n=35	.582
Previous Psychological Reports	n=36	1.00	n=36	1.00	n=38	.316	n=34	.239	n=36	1.00	n=34	.271	n=35	.700

*Significant statistics found in Bold Text

Table 20

Diagnostic Practices Compared with Interventions

(Fisher's Exact Tests)			Interventions					
Variable	Recommendations for School Staff.	p	Recommendations for Parents	p	Referral to Ext. Prof.	p	Direct Intervention By You	p
Use DSV-V	n=39	1.00	n=39	.413	n=39	.528	n=39	1.00
Use ICD-10	n=31	1.00	n=31	.624	n=31	1.00	n=30	*
Diagnosis of Beh. related or Other Disorder	n=39	1.00	n=39	1.00	n=39	1.00	n=38	1.00
Diagnosis Made By Self –If Registered	n=39	.538	n=39	.689	n=39	.269	n=38	.643
Diag.Made By Superv.Psych.-if Not Registered	n=39	.539	n=39	.683	n=39	.276	n=38	1.00
Diag.Made By Another Professional	n=39	.243	n=39	1.00	n=39	1.00	n=38	.632

*statistic not calculated because variable is a constant

Table 21

Diagnostic Practices Compared with Theories of Behaviour

(Fisher's Exact Tests)	Theories of Behaviour													
Variable	Bio.	p	Beh.	p	C-Beh.	p	Soc.L	p	Psy. D.	p	Hum.	p	Eco	p
Use DSV-V	n=36	.139	n=36	1.00	n=38	1.00	n=34	1.00	n=36	.306	n=34	1.00	n=35	.457
Use ICD-10*	n=28	*	n=28	*	n=30	*	n=26	*	n=28	*	n=26	*	n=27	*
Diagnosis of Beh. related or Other Disorder	n=36	1.00	n=36	1.00	n=38	1.00	n=34	1.00	n=36	.306	n=34	1.00	n=35	1.00
Diagnosis Made By Self – If Registered	n=36	1.00	n=36	1.00	n=38	.342	n=34	.535	n=36	.124	n=34	1.00	n=35	.476
Diagnosis Made By Superv. Psych.- If Not Registered	n=36	1.00	n=36	1.00	n=38	.316	n=34	.539	n=36	.252	n=34	1.00	n=35	.493
Diag. Made By Another Professional	n=36	.376	n=36	.274	n=38	1.00	n=34	.251	n=36	.465	n=34	1.00	n=35	.734

*no statistic calculated as one variable is a constant

Table 22

Interventions (Frequency) Compared with Theories of Behaviour

(Fisher's Exact Tests)					Theories of Behaviour									
Variable	Bio.	p	Beh.	p	C-Beh.	p	Soc.L	p	Psy. D.	p	Hum.	p	Eco	p
Recommendations for School Staff	n=36	1.00	n=36	1.00	n=38	1.00	n=34	.249	n=34	1.00	n=34	1.00	n=35	1.00
Recommendations for Parents	n=36	.581	n=36	1.00	n=38	1.00	n=34	1.00	n=36	1.00	n=34	.439	n=35	1.00
Referral to an External Professional	n=36	1.00	n=36	1.00	n=38	1.00	**n=34**	**.037**	n=36	.715	n=34	.459	n=35	1.00
Direct Intervention By You	n=36	1.00	n=36	1.00	n=38	1.00	n=34	1.00	n=36	1.00	**n=34**	**.042**	n=35	.642

*Significant statistics found in Bold Text